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COMMITTEE ON ENVIRONMENTAL POLICY

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**PREPARATIONS FOR THE SEVENTH MINISTERIAL CONFERENCE
“ENVIRONMENT FOR EUROPE”**

SELECTION OF THEMES FOR THE CONFERENCE

**COMPILATION OF SUMMARIES OF ASSESSMENTS AND STATISTICAL
REPORTS ON ENVIRONMENT¹**

Note by the secretariat

Summary

The Reform Plan of the “Environment for Europe” (EfE) process stipulates that when deciding on the themes for the Conference, preliminary findings of available assessments and statistical reports on environment should be taken into consideration (ECE/CEP/S/152, annex I, para 12(a)). The Extended Bureau of the Committee on Environmental Policy agreed at its meeting on 19 May 2009 to invite the EfE process’ partners involved in preparing assessment and statistical reports on environment to submit brief summaries of the most recent and/or upcoming reports (ECE/CEP/2009/8, paragraph 19). In accordance with this decision, the secretariat prepared the compilations of summaries presented in this document. The document aims to facilitate the Committee’s deliberations on the selection of themes for the agenda of the Seventh EfE Ministerial Conference.

Due to the strict limitation of length for official documents undergoing translation into other official languages of the United Nations, this document is made available in English only. For additional information, delegates may wish to consult the relevant websites, which are included in most of the summaries.

¹ The information in this document is presented in the way as received from the respective authors.

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I. UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE

A. Strategies and policies for air pollution abatement²

Keywords

1. Recent progress and status of the Convention and its Protocols; trends in air pollution emissions and effects; implementation of and progress in national policies and strategies; compliance with the obligations; controlling long-range transboundary air pollution in the United Nations Economic Commission for Europe (UNECE) region; capacity building activities.

Objective and scope

2. Reviews of Strategies and Policies for Air Pollution Abatement are produced every four years and reflect the continued efforts made by Parties to comply with their obligations under international environmental agreements, and to contribute to a cleaner environment in the region. The 2006 review is based on replies by 24 Parties to the Convention to the 2006 questionnaire. The questionnaire was used as a tool for determining compliance by Parties to the Convention and its Protocols, as well as for the collection and dissemination of more general information on air pollution abatement technologies and trends related to the integration of air pollution mitigation policies with economic, transport, energy, waste management, spatial planning and other policy frameworks.

3. The next review is planned for 2010.

Main findings and/or major concerns

4. The Convention on Long-range Transboundary Air Pollution has been instrumental in reducing emissions contributing to transboundary air pollution in the UNECE region through coordinated efforts on research, monitoring and the development of emission reduction strategies on regional air pollution and its effects. As of 15 September 2007, 51 member States of UNECE and the European Community were Parties to the Convention.

5. The Convention's work continues to be underpinned by strong science. Monitoring gives basic information on pollutant levels and environmental damage and recovery as well as providing data that are essential to derive response mechanisms and for developing predictive models. Linking these scientific activities and policy development, for example using integrated assessment modelling, remains an important feature of the Convention's approach to develop protocols and abate air pollution. Concentrations of sulphur dioxide in Europe continued to decrease: 65 percent from 1990 to 2004. Concentrations of other pollutants have also decreased over the same period: nitrogen oxide (NOx) by 30 percent, volatile organic compounds (VOCs) by 38 percent and ammonia by 22 percent.

6. Effects, particularly acidification, have fallen in line with the drop in emissions. This was especially notable in fresh waters in some regions. However, there remain concerns about nitrogen depositions, ozone concentrations, and the effects of particulate matter on human health.

² By the UNECE Convention on Long-Range Transboundary Air Pollution; review 2006, published in 2007; website: (<http://unece.org/env/lrtap/ExecutiveBody/2006.Strat.PoliciesReview.E.pdf>).

7. A serious concern is the too low level of ratification and implementation in UNECE countries in transition. Increased emphasis on the implementation of the Convention and its Protocols is placed in particular on these countries. The project “Capacity Building for Air Quality Management and the Application of Clean Coal Combustion Technologies in Central Asia” (CAPACT) was one concrete response to this need. Further capacity-building was foreseen under an action plan for countries of Eastern Europe, Caucasus and Central Asia (EECCA), approved in 2005 by the Executive Body.

8. The EECCA action plan aimed, inter alia, to create awareness of air pollution and its effects on health and the environment, ensure political commitment at the ministerial level to tackle air pollution problems, develop emission estimates and scenarios, set up monitoring stations and extend the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission for Air Pollutants in Europe (EMEP) modelling to Central Asia, and develop ecosystem sensitivity maps and health damage estimates.

9. A further objective of the Convention is to strengthen targets under the Protocols and introduce flexible mechanisms for helping countries in transition to implement them. Current priorities under the Convention have included the finalization of the reviews of the three most recent protocols: the 1998 Protocol on Heavy Metals, the 1998 Protocol on Persistent Organic Pollutants (POPs) and the 1999 Protocol to Abate Acidification, Eutrophication and Ground-level Ozone. For the Protocol on POPs, new substances have been evaluated and recommendations made to the Executive Body for their addition to one or more of the annexes in the Protocol. Exploration of management options to control the use of some of these substances is also a priority, as is the determination of the most appropriate way (from a legal perspective) to amend the Protocol. For the Protocol on Heavy Metals, while no new substances have been proposed, Parties have been encouraged to work on an effects-based approach to formulating future optimized control strategies for heavy metals.

10. Another concern is the health effects of particulate matters and the issue of how hemispheric transport of air pollution might be addressed. Other issues are under consideration such as the future synergies and tradeoffs with climate change, biodiversity protection and the effects of nitrogen depositions.

B. Second Assessment of Transboundary Rivers, Lakes and Groundwaters³

Keywords

11. Transboundary waters, environmental policy, international cooperation, water management.

Objective and scope

12. The key goal of the UNECE second Assessment of Transboundary Rivers, Lakes and Groundwaters is to provide the basis for continuous bilateral and multilateral cooperation under the UNECE Convention on the Protection and Use of Transboundary Watercourses and

³ By the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes; to be published in 2011; website: (<http://www.unece.org/env/water>).

International Lakes (Water Convention), facilitate informed decision-making on the management of shared water resources in the UNECE region and support all actors involved at the national, transboundary and regional levels. Furthermore, one of the objectives of the assessment is to keep the state of shared water resources under scrutiny and to improve their management. The scope of the assessment report covers status of transboundary watercourses, identification of pressures on watercourses and evaluation of their relative importance, as well as description of the extent of transboundary cooperation (joint bodies, joint monitoring, etc.) currently in place and measures taken. Climate variability and change with predicted implications to the water management in the transboundary context , is also addressed, when information from the countries is available, including information on measures for adaptation to climate change implemented in the water sector. Hot spots in the region as well as security implications will also be highlighted. The report provides an up-to-date overview of topical issues in managing transboundary waters of the region, highlighting joint priorities to the attention of decision-makers and also donors. The process of assessment itself allows exchange of experience and increasing understanding of the problems and solutions in the whole UNECE region.

13. Presentation of the report on the occasion of the Seventh Ministerial Conference “Environment for Europe” in 2011 is particularly appropriate because of the assessment’s subregional focus is on Central Asia, and because of transboundary water issues being particularly pressing there in the context of the water-energy nexus.

Main findings and/or major concerns⁴

14. The assessment gives an overview on the pressures, status and trends of transboundary surface waters and groundwaters in the UNECE region. Higher attention is devoted to the countries of EECCA and South-Eastern Europe (SEE), which are facing the biggest problems and for which information has never been produced in a systematic, comprehensive way. The report will provide information on more than 140 transboundary rivers, more than 30 transboundary lakes and more than 120 transboundary aquifers. Thus it enables to assess how the Water Convention is being implemented in the region and to evaluate progress achieved. Progress – non-uniform, at different stages – is observed in cooperation on transboundary waters in the region. With the integrated approach chosen, the report advocates looking at both surface water and groundwater within a basin.

15. The report describes the status of transboundary watercourses by river basin, identifies pressures on watercourses and evaluates their relative importance, as well as the extent of cooperation (joint bodies, joint monitoring, etc.) currently in place and response measures taken. Issues highlighted will include effects of climate change and increasing groundwater abstraction on water resources, diverse pollution issues and further action needed to improve the chemical and ecological status of transboundary waters, implications of water quality to health, need for plans for integrated water resources management considering jointly surface waters and groundwaters, as well as specific needs of countries in EECCA and SEE.

16. The report also highlights cross-cutting themes that are a challenge for managing transboundary waters, in particular the impacts of and adaptation to climate change. Coping

⁴ Preliminary, to be reviewed/complemented as the report continues to take form.

capacity with the variability in water availability and scarcity is best developed in coordination among the riparian countries. Examples are given of implications of projected climatic variations and changes at basin scale.

17. In South-East Europe, for example, a number of challenges were identified, including differing institutional and legal frameworks as well as interests of riparian countries. Water cooperation is not always high in the political agenda and difficult political relationships affect also management of water resources in certain areas. Conflicting water uses put strain on relations. Weaknesses can be observed in national monitoring systems; at transboundary level there is a lack of information exchange and information is commonly non-harmonized, which limits possibilities for comparisons. Joint monitoring and assessment are almost non-existing, except in a few positive cases. Among positive developments identified is the progress, albeit slow, in several basins with regard to legal, policy and institutional frameworks. The efforts by the countries implementing the UNECE Water Convention and the EU Water Framework Directive are clearly complementary.

C. Fourth report on the implementation of the Convention on the Transboundary Effects of Industrial Accidents (2006–2007)⁵

Keywords

18. Assessment of the Convention's implementation; commitment by countries; challenges and needs for assistance in implementing the Convention; cooperation with neighbouring countries.

Objective and scope

19. The Fourth report on the Convention's implementation assesses the overall implementation of the Convention for Parties and for those non-Parties from EECCA and SEE, which participate to the Assistance Programme, for the years 2006-2007. The report, based on the individual implementation reports, is prepared by the Working Group on Implementation, body under the Convention created for this purpose.

Main findings and/or major concerns

20. The Working Group considered that adequate legislation had been introduced by the majority of the Parties, including those from EECCA and SEE countries. Nevertheless, for the EECCA and SEE countries the practical enforcement of legislation often constitutes a problem, and therefore efforts need to be continuously taken to strengthen legislation. EECCA and SEE countries are encouraged to continue and intensify their work under the implementation phase of the Assistance Programme in this area, and to make, where needed, concrete requests for assistance.

21. Parties from Western and Central Europe are encouraged to continue properly maintaining data on hazardous activities and to further ensure that their neighbours were well informed.

⁵ By the UNECE Convention on the Transboundary Effects of Industrial Accidents; published in 2008; website: (<http://www.unece.org/env/teia/DocsFifthMeeting.htm>).

22. In addition, the Working Group encourages the Parties from Western and Central Europe to engage actively in the Assistance Programme for EECCA and SEE countries so as to enable the latter countries to further strengthen their efforts with respect to the identification and notification of hazardous activities.

23. Prevention seemed to remain a challenge for EECCA and SEE countries. Therefore, the Working Group encourages EECCA and SEE countries to take advantage of existing good practices and to intensify their work in this area. The Western and Central European countries are also invited to share good practice through comprehensive reporting and the establishment of cooperation mechanisms.

24. Bilateral cooperation related to contingency planning and notification systems in the event of accidents should be further pursued and, where possible, enhanced. The Working Group encourages Parties and other UNECE member countries, following up the recommendation of Third Consultation of Points of Contact, to perform comprehensive analytical exercises aimed at further improving their preparedness and the proper use of the Industrial Accidents Notification (IAN) System. Parties are also invited to carry out, in cooperation with the Joint Expert Group, response exercises of simulated industrial accidents with effects on waters. EECCA and SEE countries should actively participate in these exercises and, when needed, should request the necessary support.

25. The Working Group invites Parties and other UNECE member countries to continue their efforts to strengthen the Convention's implementation and to report on these efforts. It encourages the Parties from Western and Central Europe that are well advanced vis-à-vis implementation to report in the future reporting rounds on further progress and new developments. The countries from EECCA and SEE are invited to further intensify their work in applying the Convention, building on the framework of the Assistance Programme, under which they could request and receive support tailored to the needs expressed. In doing so, they should apply the strategic approach, the adoption of which is supported by the Working Group.

D. Second Review of Implementation of the Convention on Environmental Impact Assessment in a Transboundary Context⁶

Keywords

26. Convention; multilateral environmental agreement; environmental impact assessment; transboundary; international cooperation; national reporting; implementation; transposition; compliance; application.

⁶ By the UNECE Convention on Environmental Impact Assessment in a Transboundary Context; published in 2008; website: (http://www.unece.org/env/eia/implementation/review_implementation.htm). The second review was adopted by the Meeting of the Parties to the Convention (decision IV/1, Bucharest, 2008), subsequently published by the United Nations as *Review of Implementation of the Espoo Convention* (ECE/MP.EIA/11, 2009). Third Review of Implementation will be drafted in second half of 2010, based on national reports completed in the first half of 2010, and put before the next session of the Meeting of the Parties to the Convention (tentatively scheduled for May 2011 in Geneva).

Objective and scope

27. The review of implementation is prepared based on responses by Parties to a questionnaire (i.e. national reporting) on their legal implementation and practical application of the UNECE Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention). The second review covered the period 2003 to 2005; the third review will cover the period 2006 to 2009. The Meeting of the Parties requested the Convention's Implementation Committee to take into account in its work general and specific compliance issues identified in the second review. The Committee is responsible for the review of compliance by Parties with their obligations under the Convention. However, besides its importance to the Committee, the review provides valuable information for Parties wishing to strengthen their implementation of the Convention, for States considering acceding to the Convention in their legal and administrative preparations, and for others wishing to understand better how the Convention is implemented in national legislation and applied in practice.

Main findings and/or major concerns

28. An analysis of the information provided in the responses to the questionnaire revealed the increasing application of the Convention and the continuing development of bilateral and multilateral agreements to support its implementation. However, the analysis also revealed a number of possible weaknesses or shortcomings in the Convention's implementation. These weaknesses point to potential and necessary improvements in the implementation of the Convention. To guide and focus the future work under the Convention, they are listed and summarized below:

- (a) Not all respondents to the questionnaire recognized that both the Party under whose jurisdiction a proposed activity is envisaged to take place, and the Party likely to be affected by the transboundary impact of the activity, are responsible for ensuring opportunities for public participation under the Convention;
- (b) Not all respondents recognized that the Convention provides for direct consultations between Parties that are distinct from, and come later than, public participation and consultations of the authorities during commenting on the environmental impact assessment documentation;
- (c) Some Parties appeared to apply the Convention routinely. Others, with similar levels of development activity and similar possibilities to affect other Parties, appeared to be more reluctant to embark on transboundary consultations and so limited their experience in the application of the Convention;
- (d) Few Parties had had experience of carrying out post-project analysis, that is the optional surveillance of an activity that has been subject to procedures under the Convention and determination of any adverse transboundary impact;
- (e) There was a continuing need for Parties to establish bilateral and multilateral agreements to address numerous practical aspects of the application of the Convention.

29. The review was based on national reports submitted by 33 of the 39 States Parties to the Convention for the period reviewed. The remaining six States submitted national reports late.

The Meeting of the Parties decided that a failure to report on implementation might be a compliance matter to be considered by the Implementation Committee.

30. As requested by the Meeting of the Parties, the Committee has begun consideration of general and specific compliance issues identified in the second review. At the time of writing, this had led to the Committee (a) making a number of general recommendations regarding consultations (article 5) and the final decision (article 6), and (b) contacting ten Parties regarding possible specific compliance issues.

E. Synthesis report on the status of implementation of the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters⁷

Keywords

31. This report summarizes information from 32 national implementation reports. It aims to assist the Parties in assessing implementation of the UNECE Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention) and in facilitating preparation and adoption by the Meeting of the Parties of a number of decisions.

Objective and scope

32. The synthesis report has been prepared on the basis of 32 national implementation reports submitted by Parties to the Convention. The synthesis report gives particular attention to information related to some of the changes and trends emerging in the current reporting cycle, while at the same time attempting to provide, to the extent possible, a comprehensive overall picture of implementation. The report is structured in four parts. Chapter I briefly describes the procedural aspects of the second reporting cycle. Chapter II attempts to identify some regional trends in implementation. Chapter III provides a thematic review of implementation. Chapter IV offers conclusions on implementation trends as well as on the reporting process itself.

Main findings and/or major concerns

33. The level of implementation continues to vary significantly across the UNECE region, depending, inter alia, upon countries' legal traditions, experiences in democratic governance and socio-economic conditions. Comprehensive implementing regulations and procedures are still missing in some countries. As a consequence, the implementation of all pillars of the Convention's provisions is progressing rather slowly. Practical implementation remains a major problem in EECCA and also in SEE. Some of the problems or challenges identified include difficulties in the implementation by public authorities at the local level and especially in remote regions, poor implementation by public authorities other than ministries of environment, and the lack of financial and human resources and technical background.

⁷ By the UNECE Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters; published in 2008; website: (http://www.unece.org/env/documents/2008/pp/mop3/ece_mp_pp_2008_4_e.pdf).

34. Parties appeared to have the fewest problems in implementing the access to information pillar, although in EECCA, and to some extent in SEE, significant obstacles remain. These include the absence of a clear legislative base, the existing gaps and discrepancies in legislation as compared to the Convention, and a lack of clarity regarding the procedure and conditions under which authorities may apply exemptions. The lack of understanding by officials of the meaning of "environmental information" and the lack of awareness of the public's rights are also serious impediments. Despite progress on and positive practical examples of the active dissemination of information, difficulties include the absence of clear regulations on the type and scope of information to be collected, processed and disseminated.

35. In most EECCA and SEE countries, legislative provisions on the collection and dissemination of environmental information are relatively well developed and can be found in environmental protection laws, sectoral laws or laws regarding emergency situations. However, the absence of clear procedures regarding the type and scope of information that should be collected, processed and published is reported as a significant obstacle in the implementation of article 5.

36. In addition, the lack of financial and human resources as well as the lack of equipment needed for the collection and dissemination of information were reported as major obstacles.

37. The implementation of the public participation pillar seems to be problematic, especially in EECCA and SEE countries. Here certain advances have been made in the development of general legislative frameworks, but uniform regulations on environmental impact assessment (EIA) are often missing. Moreover, the lack of adequate control by public authorities over the quality and level of public participation, especially where developers are responsible for ensuring public involvement, create obstacles. More substantial progress has been made in the European Union (EU) region. However, in some countries there appears to be a trend to narrow the interpretation of the public concerned and to narrow standing criteria for non-governmental organizations (NGOs).

38. The implementation of the access to justice pillar still appears to present the main challenge for Parties in almost all parts of the UNECE region. Comprehensive implementing regulations and procedures are still missing in some countries. The length of judicial review, financial barriers, the need for pro bono legal services and difficulties with obtaining injunctive relief are among the main obstacles in common for all the subregions. As a result, access to justice is guaranteed in principle, but may be hampered in practice.

F. Critical issues in implementation of environmental policies⁸

Keywords

39. Environmental Performance Review (EPR) Programme, environmental policies, political support, environmental improvements, environmental institutions, mobilizing financing, monitoring environmental progress, integrating environmental policy into sectoral policies, implementation.

⁸ UNECE Environmental Performance Review Programme; published in 2007; website: (<http://www.unece.org/env/epr/publications/Critical%20issues%20implementation%20EPR.pdf>).

Objective and scope

40. This analysis has been written to assist Ministers at the sixth Ministerial Conference “Environment for Europe” (Belgrade, 2007) in making decisions on the further directions needed to improve the environmental situation of the region and on defining corresponding priorities. It focuses on the progress in environmental management achieved by countries of EECCA and SEE reviewed by the EPR Programme, and evaluates problems and challenges ahead. It highlights critical issues in implementation of environmental policies which recur in a majority of reviewed countries.

Main findings

41. Most of the reviewed countries have made progress over the past decade, but not all at the same pace. The difference is mainly attributable to different starting points and transition paths, even though the countries initially had similar political and economic systems. Virtually all reviewed countries now have environmental framework laws in place providing a legal basis for subsidiary legislation, which in most countries is still being developed. They have also undertaken institutional reforms and are gradually improving the use of economic instruments. Most countries are engaged in promoting environmental policy integration through the development of sustainable development strategies and the introduction of new market-based mechanisms and institutional tools. In parallel, greater involvement by civil society is increasingly pushing governments to act in a more effective and responsible manner regarding environmental protection. However, most countries still face obstacles in raising public awareness. In a few countries, progress has been aided by their ambition to use EU legislation as a model and principles of multilateral environmental agreements as guidance. However, despite these improvements, key barriers to progress persist in reviewed countries. The most critical obstacles, as identified through the EPR programme, are the lack of political support for environmental goals, the ineffectiveness of environmental institutions (in particular with regard to implementation and enforcement), the inability of governments to mobilize financing even for clearly established environmental priorities, the still weak environmental policy integration, and the failure to establish and use monitoring to measure progress and set new targets.

Challenges

(a) Governments in all EECCA and SEE countries should strengthen their political support to resolving persistent environmental problems. They should streamline environmental priorities, rationalize environmental legislation and reinforce implementation in order to promote a more sustainable approach to economic progress, approximate their environmental practices to those of the EU and fulfil international obligations under multilateral environmental agreements they are parties to. They should also strengthen the role of civil society in environmental decision-making.

(b) Governments in all EECCA and SEE countries should urgently address the serious bottlenecks caused by weak environmental institutions. They should strengthen the level, mandate and capacities of the environmental authorities to make these more competent and effective, and should consolidate and empower enforcement structures, in particular at the subnational level. They should also clarify institutional task sharing by assessing the role of environmental bodies and should improve institutional coordination mechanisms, both

horizontally (between sectoral authorities, between divisions of the same ministry) and vertically (between the national and subnational levels).

(c) To increase the effectiveness of environmental financing, Governments in all EECCA and SEE countries should review procedures, improve institutional capacity, and make proper use of economic instruments. A more solid foundation for identification of projects and prioritization of spending of environmental funds should be developed, and transparency, financial planning and project-cycle management should be introduced systematically. Investments in environmental infrastructure should be increased.

(d) Governments in all EECCA and SEE countries should conduct an overall review of their environmental monitoring systems, including readjusting their targets so as to better understand actual environmental priorities and develop more realistic environmental programmes and strategies for their effective funding. To that end, focused environmental indicators should be selected, monitoring equipment modernized and data collecting, processing and reporting improved. Environmental authorities should enforce self-monitoring in enterprises.

(e) Governments in all EECCA and SEE countries should institutionalize the integration of environmental policy into sectoral policies, and should ensure involvement of the private sector and effective public participation in the policy integration process. In particular, they should ensure the implementation of related instruments (e.g. a sustainable development strategy, a poverty reduction strategy) to support a broad and effective integration of environmental policies into sectoral policies, and should introduce specific tools and mechanisms (strategic environmental assessment, environmental impact assessments, environmental management systems, market-based tools, etc.) integrating environmental requirements into transport, energy, agriculture and other key sectors.

G. Environmental Performance Review Programme: third cycle⁹

Keywords

42. Environmental performance, environmental policies, environmental protection, environmental legislation, environmental financing, environmental monitoring, public participation, international cooperation.

Objective and scope

43. The second cycle of the UNECE Environmental Performance Review Programme is half way through - it is time to plan the third cycle of Environmental Performance Reviews and envisage its structure and goals. Following the request by the UNECE Committee on Environmental Policy (CEP) at its special session (Geneva, 27-29 January 2009), the potential options for the third cycle of EPRs will be discussed on the basis of the EPR Programme's experiences. It is expected that the background paper will be presented to the Committee on Environmental Policy in 2010.

⁹ UNECE Environmental Performance Review Programme; to be published in 2011.

H. Second report on progress in implementation of the UNECE Strategy on Education for Sustainable Development¹⁰

Keywords

44. Education; sustainable development; policies; teaching tools and materials; international cooperation; national reporting; review of implementation; practical application; knowledge of indigenous people; competences; research and development.

Objective and scope

45. A region-wide comprehensive reporting mechanism was established as an innovative tool helping countries to evaluate progress in the implementation of the UNECE Strategy on Education for Sustainable Development (ESD). The first (pilot) reporting exercise was carried out during the Phase I of the Strategy implementation (in 2007).

46. The first mandatory reporting exercise will take place at the end of Phase II (during 2010) with a view to assessing progress in furthering the implementation of the Strategy.

47. The review will be based on the set of indicators developed by the UNECE Expert Group and which has been revised following the pilot reporting. Countries will be requested to prepare their national implementation reports (NIRs) in the course of 2010 in accordance with the agreed procedure and through an interactive, consultative process involving multi-stakeholder participation. The regional synthesis report will be prepared at the end of 2010 on the basis of NIRs to be submitted by October 2010.

Main findings and/or major concerns

48. While the reporting cycle for the review of the implementation of the Strategy on ESD is only scheduled for 2010, some issues with regard to the main successes and challenges in the implementation have been put forward by the member States in their progress reports made at the annual meetings of the UNECE Steering Committee on ESD.

49. Overall, considerable progress has been achieved in advancing ESD in the region. Many countries established the necessary policies and institutional arrangements to implement the Strategy, taken steps to introduce ESD into their policy and legislative documents, and started work on preparation and implementation of national action plans for ESD.

50. Capacity-building activities were being carried out through various projects on ESD targeting educators, administrators of educational institutions, policymakers and decision makers. Information and methodological materials, including in electronic form, are being developed to support the education sector's efforts to integrate ESD into the curriculum. In some countries, specific budgets are allocated for ESD activities and specific ESD awards are being established serving as incentives for educational institutions and other stakeholders to embrace ESD.

¹⁰ UNECE Strategy for Education for Sustainable Development; to be published in 2011; website: (www.unece.org/env/esd/Implementation.htm).

51. Despite this progress, however, at a middle point of the implementation of the United Nations Decade of ESD, many countries still, face some significant challenges:

- (a) Financial constraints and the lack of targeted resources, probably arising from a lack of political will, remained a challenge to the further implementation (especially in countries with economies in transition);
- (b) Lack of efficient coordination between the numerous actors involved at the national level;
- (c) Lack of competences in ESD among educators;
- (d) Lack of understanding among educators and policymakers of the comprehensive and integrative concept of sustainable development to allow for socio-economic perspectives in ESD;
- (e) Lack of ESD teaching materials, and in particular methodological tools.

52. In the II phase of the implementation of the UNECE Strategy on ESD, the top priorities at regional level relate to the need to support development and implementation of National ESD Action Plans, the urgency in developing competences in ESD and integration of ESD as a cross-cutting issue in educational as well and sectoral policies on the national level.

I. Transport, health and environment: trends and developments in the region (1997-2007)¹¹

Keywords

53. Transport, health, environment, trends, ecosystems, air pollution, road traffic casualties, energy consumption, pan-European programme.

Objective and scope

54. The report, developed by the World Health Organization (WHO)/Europe and UNECE, reviews trends in transport, health and environment over the past 10 years (1997-2007), including statistical data and developments across the region, covering the growth of transport and its effects on health and ecosystems. The report examines developments and progress in transport, health and environment since 1997 and the effects of transport on health and the environment, including: transport-related air pollution, road traffic casualties, energy consumption and carbon dioxide (CO₂) emissions. It reviews progress made across the region in the priority areas of Transport Health and Environment Pan-European Programme (THE PEP): policy integration, urban transport and demand management.

¹¹ Transport Health and Environment Pan-European Programme; published in 2008 (THE PEP review report); website: (<http://www.unece.org/thepep/en/publications/THE.trends.en.pdf>).

Main findings and/or major concerns

55. THE PEP review report demonstrates that while transport is an integral part of economic and social development and essential to the functioning of modern society, current patterns of transport and travel are not sustainable, given increasing pressures, in particular on urban areas. These include the negative effects on health and ecosystems of transport-related air pollution, congestion and road traffic accidents. Trends over the past 10 years point to the need for innovative solutions addressing the challenges of sustainability, accessibility, mobility and making cities more liveable. This requires a strengthened and sustained commitment from Governments at both the national and local levels as well as a renewed political impetus for change.

56. There is likewise a need to integrate the principles of sustainable development into transport policies. These include the system elements that best protect health, conserve resources, are energy efficient, consume the least land, have the lowest externalities, are socially acceptable and are the safest.¹²

J. The Pan-European Programme on Transport, Health and Environment: assessment and progress made¹³

Keywords

57. THE PEP, assessment, best practice, policy integration, sustainable urban transport, demand management, modal shift.

Objective and scope

58. THE PEP assessment report looks at the effectiveness of THE PEP in improving communication, cooperation and collaboration among the three sectors and its impact on the development of intersectoral policies and strategies in Member States with regard to the integration of environmental and health concerns into transport policy. Moreover it assesses the institutional set-up of THE PEP and its secretariat, makes recommendations for improvement and gives examples of good practice at national level.

Main findings and/or major concerns

59. THE PEP assessment report found that many UNECE-WHO Member States had made progress in achieving THE PEP priority goals of policy integration, sustainable urban transport and demand management and modal shift away from road toward more sustainable modes.

¹² THE PEP review and assessment reports were prepared as background documentation for the Third High-level Meeting on Transport, Health and Environment (January 2009). The meeting adopted the Amsterdam Declaration with 4 new priority goals and a new work plan with concrete activities for work under THE PEP in the coming five years. Future challenges will reflect the new priority goals for THE PEP agreed in the Amsterdam Declaration, namely: (a) sustainable economic development through investment in environment and health-friendly transport; (b) sustainable mobility and promotion of a more efficient transport system; (c) reduced emissions of transport-related greenhouse gases, air pollutants and noise; and (d) the promotion of policies and actions conducive to healthy and safe modes of transport.

¹³ Transport Health and Environment Pan-European Programme; published in 2008 (THE PEP assessment report); website: (<http://www.unece.org/thepep/en/publications/THEPEP.assessment.en.pdf>).

These included improved infrastructure for walking and cycling in urban areas, mobility management schemes for schools and communities, improved access to clean and efficient public transport networks, park and ride schemes and eco-driving techniques, as some examples. Remaining challenges include the effective implementation of the three new implementation mechanisms¹⁴ agreed by the Third High-level Meeting on Transport, Health and Environment (January 2009) for achieving the four priority goals. Moreover, Member States are called on to provide stable financing for concrete projects and activities developed in THE PEP Workplan. More information on best practices can be found in THE PEP Clearinghouse (<http://www.thepep.org/en/workplan/clearing/ch.htm>).

K. Investor interest and capacity-building needs report¹⁵

Keywords

60. The report provides initial assessment of public and private sector investor interest in the future investment fund and of the local financial environment, appraisal of the energy efficiency and renewable energy investment project development capacities of local experts and capacity building needs, and preliminary review of national energy policy information in the twelve countries participating in the project.¹⁶

Objective and scope

- (a) Financial environment and major barriers to financing energy efficiency and renewable energy projects
- (b) Energy efficiency and renewable energy project development and finance capacities;
- (c) Public and private sector investor interest in the Eastern European Energy Efficiency Investment Fund;
- (d) Capacity-building needs in the countries of the region for successful development of bankable project proposals in the area of energy efficiency and renewable energy sources;
- (e) Energy Efficiency Business Development Course Programme;
- (f) Conclusions and recommendations for future project activities.

¹⁴ (a) THE PEP *estaffete* (relay race), designed to diffuse best practice in sustainable urban transport across the region; (b) the national transport, health and environment action plans (NTHEAPs); and (c) THE PEP Partnership, whose goal is to build capacity and assist Member States in developing these plans.

¹⁵ The report is produced in the framework of the UNECE's Financing Energy Efficiency Investments for Climate Change Mitigation Project (within the Energy Efficiency 21 project); published in 2009; website: (<http://www.unece.org/energy/>).

¹⁶ Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Kazakhstan, Republic of Moldova, Romania, Russian Federation, Serbia, the former Yugoslav Republic of Macedonia, and Ukraine.

Main findings and/or major concerns

61. Energy, industry and residential sectors in all countries of the region have significant energy efficiency potential. Attracting resources to finance potential energy efficiency and renewable energy projects is regarded as an important issue by policymakers and all countries have expressed a strong interest in receiving financing (including equity and mezzanine financing) for implementation of energy efficiency (EE) and renewable energy sources (RES) projects. However, several major barriers preventing financing potential energy efficiency and renewable energy projects in a “business as usual” model have been identified during the assessment missions:

- (a) Lack of political will by governments to provide adequate legislative and regulatory environment conducive to implementation of EE and RES projects. In many countries, while energy efficiency and development of RES is listed among the country priorities in strategic and policy documents, in practice the measures, incentives, regulation and institutional setting are insufficient for the objectives to be achieved.
- (b) Lack of awareness about economic benefits from energy efficiency and renewable energy projects at all levels: government (national, regional and local), private sector, general public. Energy efficiency improvement is not perceived as a significant economic resource or potential source of revenues. Lack of supportive legislation and regulations related to public sector, which receives budget funding, results in absence of interest from regional and local authorities: due to the budgetary regulations, they often cannot keep the financial benefits of energy savings achieved. Similarly, lack of strict regulations for inefficient energy use and lack of economic incentives for improving energy efficiency make companies little interested in implementing energy efficiency projects.
- (c) Energy tariffs (electricity and heating) are often below the market price, in particular for the residential sector. Current energy tariffs do not allow implementation of energy savings and energy efficiency measures to be considered as economic necessity by companies, organizations and households. As a result, companies are less interested in developing adequate projects that potentially can bring significant economic benefits.
- (d) Stimulating conditions for renewable energy development have not been fully established as yet. Administrative obstacles for receiving permits and concessions, absence of feed-in tariffs for electricity generated from renewable energy, uncertain access to the grid do not facilitate renewable energy development.
- (e) Most large-scale projects could be found only in big energy companies or sometimes in the field of renewable energy, which leaves outside a number of areas strongly in need of energy efficiency measures, such as public buildings renovation, modernization of electricity production units and distribution lines or modernization of district heating. Bundling several projects of a medium or small size is crucial for enabling the future Investment Fund to operate within these sectors, often considered as a priority by the Governments of the participating countries. However, very few bundling possibilities are already in place in the countries.
- (f) Lack of capacity for preparing bankable project proposals is one of the major obstacles to attracting investments and needs to be addressed as early as possible through the

relevant training, including Business Development Course Programme developed in the framework of this report as well as through other available tools and programmes.

62. The above mentioned barriers emphasize the importance of strategic government support for dissemination of information on economic benefits related to energy efficiency and renewable energy sources use and for adoption of the most needed legislative and regulatory measures that enable investments in such projects to be profitable.

L. Regional analysis of policy reforms to promote energy efficiency and renewable energy investments¹⁷

Keywords

63. In-depth analysis of the development of energy markets and of the progress in policy reforms and regulatory frameworks in the twelve countries participating in the project.¹⁸

Objective and scope

- (a) Analyse key energy sector developments of participating countries;
- (b) Review progress of reforms to introduce market based energy systems
- (c) Identify specific policy, regulatory, administrative and institutional “bottlenecks” to energy efficiency and renewable energy market formation;
- (d) Identify and analyse 12 specific case studies of how policy reforms could transform economically attractive investment projects into bankable projects;
- (e) Describe the “scaled-up” potential environmental, economic and financial impact of the case studies for selected projects or ‘classes’ of projects including reductions of greenhouse gas emissions;
- (f) Recommend new reforms to introduce market based energy systems based on the regional analysis and case studies.

Main findings and/or major concerns

64. The following is a summary of the preliminary findings of the barriers common to the project region.

65. Legal, institutional and administrative barriers:

- (a) Complexity of the regulatory framework, lack of transparency, arbitrariness in administrative procedures;

¹⁷ The report is produced in the framework of the UNECE Financing Energy Efficiency Investments for Climate Change Mitigation Project (within the Energy Efficiency 21 project); to be published 2010; website: (<http://www.unece.org/energy/>).

¹⁸ Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Kazakhstan, Republic of Moldova, Romania, Russian Federation, Serbia, the former Yugoslav Republic of Macedonia and Ukraine.

- (b) Lack of secondary legislation and operational instructions, tools and procedures necessary to implement primary legislation or strategic programmes;
- (c) Complex and cumbersome authorization procedures for energy efficiency and renewable energy projects;
- (d) Absence of dedicated procurement rules to support acquisition of energy efficient equipment and services for public entities;
- (e) Lack of cooperation between different ministries and agencies involved in energy policy and between authorities at the national and local levels.

66. Market inefficiencies, economic and financial barriers:

- (a) Excessive state intervention in price formation, artificially low tariffs for some final customers and cross-subsidies between customer segments prevent the establishment of a competitive market environment;
- (b) Low energy tariffs limit the profitability of energy efficiency projects and do not provide sufficient incentives for a change of behaviour to the customers;
- (c) State monopoly or market domination by state-owned companies is an obstacle for entry of independent operators, which may be able to implement best practices and advanced technologies, into the energy markets;
- (d) Obsolete and inefficient infrastructure for transport and distribution of energy, including grid losses, lack of adequate grid connection, and lack of metering;
- (e) Local utilities and distribution companies often do not have adequate financial means for infrastructure improvement and are therefore reluctant to support promising energy efficiency projects;
- (f) Very limited availability of public funds for financing energy efficiency and renewable energy initiatives and programmes.

67. Lack of awareness, human capacity and professional skills:

- (a) Lack of political commitment to implement the necessary policy reforms: programmes and strategies are often more declaratory than operational;
- (b) Authorities at the local level lack human resources and professional expertise for implementation of identified projects;
- (c) Commercial banks lack experience in financing energy efficiency and renewable energy projects and understanding of their potential economic benefits;
- (d) Lack of training and education opportunities for professionals with adequate for preparation of energy audits, identification of attractive project opportunities and preparation of bankable project proposals;
- (e) Lack of awareness of the benefits of energy efficiency improvements among consumers, both residential and business ones.

II. “ENVIRONMENT FOR EUROPE” PARTNERS

A. Dinaric Arc and Balkans Environment Outlook (DABEO)¹⁹

Keywords

68. Balkans, mountains, environment, sustainable development, climate change, disasters and conflicts, ecosystem management, environmental governance, harmful wastes and hazardous substances, resource efficiency.

Objective and scope

69. The report will provide an integrated picture of environmental state and trends in this largely mountainous region, including issues of human occupation/use of the landscape, human well-being and development, related economic sectors and other topics.

70. The main issues addressed are:

- (a) Classic definitions of the Dinaric Arc and Balkans mountain region;
- (b) Thematic issues relating to sustainable development of the Balkans/ Dinaric Arc region, including UNEP priority areas, and linkages between the physical environment, human well-being and traditional economic sectors;
- (c) Common environmental issues of high interest to most DA/Balkan countries;
- (d) Geo-political issues which both divide and unite countries of the DA/Balkans;
- (e) Specific environmental and human-related problems of the high mountain zone.

Main findings and/or major concerns

71. In the past decade, the Dinaric Arc/Balkan region went through a period of conflicts and transitions, leaving countries with declining living standards and serious impacts on economic development, environment and human health. Environmental pressures range from biodiversity loss, water and soil contamination, illegal or inappropriate waste disposal or treatment, dumping of depleted uranium, intensive agricultural practices, and heavy industrial pollution. The main reasons for environmental pressures are legacies of past conflicts, former political and economic system, destruction of infrastructure, insufficient technological capacities, rapid transition to market economy, weak governance structures, and unsustainable management practices. All countries currently face serious socio-economic challenges. Industry has not yet regained its capacities, resulting in low income, welfare and employment levels. Over half of the region's labor force is unemployed and a majority of families live below the official poverty level. Most of the Balkan countries are still undergoing economic and political transformations.

72. Like any other mountainous European region, the Dinaric Arc/Balkan region suffers from continuous migration of rural population towards the cities and coast. This process became

¹⁹ UNEP/DEWA/GRID-Europe; to be published in 2009; website: (www.unep-dabeo.org).

especially intensive in the last 15 years after military conflicts in the region. As a result, extensive areas of the Dinaric Mountains became depopulated, causing a decline of traditional land-use forms and a way of life, and affecting the structure and dynamics of mountain ecosystems.

73. Intensive development and modernisation of recent decades have significantly transformed not only natural, but also cultural landscapes of the Dinaric Arc/Balkans. Global assimilation, geo-political conflicts, and economic crises facing mountain ecosystems resulted in weakening and disappearance of traditional mountain identity and generated spiritual and economic impacts on local communities. While mountains are home to indigenous cultures, they are often the poorest and least developed places in the world. Peace in the region is therefore necessary to reduce poverty, secure food supplies, and move towards sustainable development.

74. Ongoing climate change represents another serious threat. It can lead local plant communities to extinction and increase occurrence of natural disasters in the region. While climatic changes increase the frequency and severity of natural disasters, there is insufficient capacity to address the consequences of large-scale disaster events in the Dinaric Arc/Balkan countries. The main climate change-related challenges for the region are preparedness for response to disasters, establishment of disaster management information systems, development of disaster management plans, increase of public awareness and accommodation of trans-boundary issues in case of an emergency.

B. Environment and security: transforming risks into cooperation: the case of the Eastern Caspian.²⁰

Keywords

75. Environmental degradation, security, Eastern Caspian region, socio-economic, livelihood.

Objective and scope

76. The report considers the role and impact of environmental factors in securing human safety and sustained development of the eastern Caspian Sea region, including the parts of Kazakhstan and Turkmenistan opening onto the Caspian Sea. Furthermore, the analysis introduces a security perspective as it seeks to identify those environmental, socio-economic and political issues that are profoundly affecting the livelihoods of the populations and could lead to social tensions and instability.

Main findings and/or major concerns

77. The increased specialization of the region in the production of fossil fuels combined with the degradation of marine biological resources, freshwater and agricultural land are sources of concern.

²⁰ Authors: Luigi De Martino (lead author, University of Geneva); Viktor Novikov (UNEP/GRID-Arendal); The report was prepared on behalf of the partner organizations of the Environment and Security Initiative (UNEP, UNDP, UNECE, the OSCE, the Regional Environmental Centre for Central and Eastern Europe, and NATO); published in 2008; website: (http://www.grida.no/_res/site/file/publications/envsec/envsec-caspian2-eng_scr.pdf).

78. Population growth combined with unequal access to natural resources could further contribute to discriminating against and marginalizing specific social groups. Overuse of resources will have long-term consequences that will affect the region long after the oil and gas resources have been used up.

79. The quality and availability of freshwater in the arid eastern Caspian region is a key factor for rural development and public health. Access to reliable freshwater sources for the hinterland remains difficult and the vulnerability of these regions could increase with rising problems of environmental pollution and degradation.

80. By far the largest environmental impact of the Cold War period was caused by the construction and operation of military-industrial complexes and arms testing sites polluted with rocket fuel components and radioactivity, making it difficult or impossible to use agricultural land.

81. Finally the fluctuating sea level and, in a medium to long-term perspective, the issue of climate change represent a major challenge and a considerable threat for vulnerable societies such as coastal communities and ecosystems.

C. Popular report on climate change in Central Asia²¹

Keywords

82. Climate change, Central Asia, GHG emissions, energy generation and use, glacier melting, water resources, mountains, livelihoods.

Objective and scope

83. The report summarizes main findings of the Central Asian states National Communications to United Nations Framework Convention on Climate Change (UNFCCC), Intergovernmental Panel on Climate Change (IPCC) regional and themed reports and scientific paper and provides regional outlook of greenhouse gas (GHG) emissions and scenarios, climate change trends, as well as existing and projected impacts on water resources, biodiversity, economics and human health in visually appealing and popular way of data presentation. The report aims for broad audience and is intended to improve public awareness, catalyze and support decision-making. The report focuses on the national and regional issues and provides case-studies on several local problems.

Main findings and/or major concerns

84. Climate change is emerging as a new environmental and socio-economic challenge for the Central Asian region. Air temperatures in all countries and many geographic areas of Central Asia (deserts, densely populated regions, mountains) have increased while precipitation trends are different. Many small glaciers have already completely melted, while large glaciers are continuing to shrink and combined with reduced snow reserves pose potential risk of water flow reduction. Impacts on water, biodiversity and economics (agriculture) will be transboundary, and

²¹ UNEP/GRID-Arendal and ZOI Environment Network and partners (climate change focal points and institutes in Central Asia); to be published in December 2009 (preliminary title and publication date).

coordinated regional adaptation measures are required to soften the impacts and improve cooperation on early warning and response.

85. GHG emissions sources and trends are different between countries. Per capita emissions vary from less than 2 tons-per-capita to more than 8. Upper basin countries (Kyrgyzstan and Tajikistan) generate more than 90 percent of electricity using hydropower, while other countries rely mainly on fossil fuel. Significant potential for GHG emissions reduction exists in energy, transport and residential sectors.

D. Caspian Sea transboundary diagnostic analysis: updated²²

Keywords

86. Decline in biological resources; erosion of biodiversity and invasive species; decline in environmental quality and pollution; unsustainable coastal area development; implications of climate change and sea level fluctuations.

Objective and scope

87. Transboundary diagnostic analysis (TDA) identifies major transboundary environmental issues through a participatory process engaging major stakeholders and regional experts in particular. It aims to analytically identify the root causes of issues and to suggest remedial and preventive actions.

Main findings of the TDA update exercise

88. The Caspian Action Programme (SAP) and National Caspian Action Plans (NCAPs) have helped direct increasing TDA and investment to Caspian environment. A constructive regional dialogue established on Caspian environmental concerns but there is a need to “formalize” the SAP and the NCAPs.

89. Access to an availability of quality environmental information is limited in the region. A full monitoring programme (linked to monitoring programmes) needs to be activated.

90. Erosion of biodiversity continues to remain a major transboundary issue:

(a) Invasive species are one of the greatest threats to the Caspian's biodiversity and to the functioning of its ecosystem. The ecosystem is in flux and the changes are caused by a series of changes which not yet have run their course.

(b) Caspian seals is seriously threatened by canine distemper virus (CDV); persistent toxic chemicals; increased hunting and malnutrition due to collapse of prey fish population. The population size of the Caspian Seal may have fallen to as low as 110,000.

91. The decline in environmental quality remains a priority transboundary concern:

²² UNDP; report by the Caspian Environment Programme (CEP)/ CEPSAP Project; published in 2008; website: (www.caspianenvironment.org).

(c) Little evidence exists of widespread contamination due to petroleum hydrocarbons although the Terek River acts as a source of such pollution. Widespread contamination of chlorinated pesticides, notably DDT and HCHs (e.g. lindane). Data for DDT and its breakdown products demonstrate that the pollution results from contemporary, rather than historical, sources.

(d) The flux of several pollutants entering the Caspian Sea may have diminished since the early 1990s. Possible reasons include a decline in agricultural and/or industrial activities, improved environmental standards and legislation, possibly better enforcement of some regulations and the trapping of contaminants in the reservoirs, especially in the Volga and Kura River basins.

(e) There are challenges with land based oil pollution in Azerbaijan, the Islamic Republic of Iran and Russian Federation, agricultural and municipal wastes in Iran and Russia, and industrial pollution in Russian Federation and Azerbaijan.

92. Decline in biological resources is a serious transboundary issue.

(a) The catches of sturgeon and tulka have continued to decline. The total reported sturgeon catch in 2004 was approximately 900 tons compared to 25,000 tons in the early 1980s and the fishery has completely collapsed. The decline in tulka mirrors in time that of sturgeon fisheries, and may have wide ranging implications for ecosystem e.g. the health of the seal populations.

(b) The underlying and root causes of unsustainable bioresource utilization remain as poor regional management, over-fishing, illegal fishing and pollution but the productivity and integrity of the ecosystem is also now recognized as an underlying cause. Management of the bioresources is weak and needs to be strengthened. Efforts towards this aim continue to be bulked by a reluctance of countries to share fishing data.

93. The unsustainable coastal area development albeit a weakly transboundary, remains important since although the impacts are mainly local and national but the causes are generally global.

(a) The Sea level rose significantly in 1980s reaching a height in 1995 of 26.7 m causing significant flooding and economic losses. The levels have subsequently fallen but remains relatively high and there are concerns that with climate changes levels could rise again, perhaps to as high as 25.0 m in the medium term. A pilot study in Anzali Port pointed to the high social and financial costs of possible rise in the Caspian and the need for preparedness and mitigating actions. A better understanding of the implications of the climate change is evident.

(b) Marine litter is an emerging issue and that it is not yet addressed in a transboundary context. It is anticipated that this will impact coastal habitats, tourism and the fishing industries especially.

(c) Decline in coastal infrastructure and habitats is closely linked with other transboundary issues such as decline in biodiversity and pollution through damage to coastal habitats secondary pollution caused by flooding of contaminated lands. Rising sea waters will

have significant ramifications for the planning authorities and the oil industry, ports and transportation which may not have yet been fully considered by the countries.

94. The transboundary issue of impacts of the new oil and gas industry on the Caspian Sea is one which has potential impact, but as yet not been observed:

(a) The concerns pertaining to impacts of accidental spills remain, especially as the industry continues to be increasingly active in the region. The rising price of oil in the global market will continue to draw the oil companies to the Caspian and the growth in exploration and development is predicted to continue.

(b) The environmental impacts of the petroleum industry on the Caspian environment include on-going leakages from inundated historic wells and flooding of existing historic oil fields as well as accidental spillages.

95. A significant progress has been made in the region with regards to the establishment and support of legal and institutional mechanisms. Countries are bringing legislation into line with the Tehran Convention and emergent protocols. The process is not expected to be quickly accomplished:

(a) There is a need for increased standardization across the region as measures, methods, and legal standards must be harmonized across the region.

(b) There is a need to support increased public involvement mechanisms in the decision making process.

96. Economic conditions in the region have in general improved in terms of Human Development Indices and Gross National Income, but inflation has also increased as consumer prices have climbed. The percentage of earnings from agriculture has declined while industry and services has increased, in part driven by the increase in oil and gas sector revenues. Sustainability of the economic gains however requires pursuing sustainable development strategies which in some countries is not the case.

97. The TDA revisit has identified a number of new directions and knowledge gaps which need to be followed and filled.

(a) There is a need to look at the management of bioresources in a more holistic manner and to embrace the concept of the ecosystem based management approach to bioresources.

(b) Stronger inter-sectoral coordination is required and robust monitoring and data management systems are needed to support both fisheries and conservation plans to achieve this aim.

(c) Invasive species remain a real threat to the integrity of the Caspian ecosystem and the countries need to take action to manage the discharge of ships ballast waters.

(d) The pollution picture for the Caspian has not changed perceptibly but our knowledge of the pollution loading is still vague and implications of climate change causing perhaps higher run-off and flooding of contaminated lands needs to be better defined.

(e) Adaptation to climate change and specifically potential sea level rises should receive more attention particularly where sensitive conservation sites are under threat.

98. The strides by the countries have made towards regional cooperation and management is noted with the signing and ratification of the Tehran Convention and development of its attendant protocols; however, this success is tempered by weak national institutions which remain barriers to good governance.

E. Poverty and Environment Initiative of the Country Programme for Tajikistan and Kyrgyzstan²³

Keywords

99. Key country-specific poverty and environment linkages; Challenges and capacity development needs for integrating poverty-environment linkages into national strategic planning and budgeting.

Objective and scope

100. Document will analyse current situation in terms of governmental, institutional and political context for poverty-environment (P-E) mainstreaming; country-specific poverty-environment linkages and their importance for pro-poor economic growth; institutional and capacity needs for integrating systematically P-E linkages into country's planning and budgeting; and on-going or planned programmes and initiative, supported by United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP) and other agencies, focused on areas related to poverty reduction and environmental sustainability.

Main findings and/or major concerns

101. Major environmental issues linked to poverty in Kyrgyzstan and Tajikistan are: land degradation – affecting agricultural production; natural disasters with their socio-economic impact; quality and quantity of water resources, affecting human health, agriculture and energy production (most of energy coming from hydropower); and climate change with strong impacts on water availability and food security.

102. Both countries face the following key challenges to poverty-environment mainstreaming:

(a) Environment and poverty addressed separately in the national and sub-national planning processes as well as in donor supported interventions;

²³ UNDP and UNEP; these are two documents that will contain poverty and environment mainstreaming situation analysis. They will be finalized by September 2009. They are planned to be issued as a report and not as a publication; website: (<http://www.unpei.org/>).

- (b) Non-existent or weak mechanisms for reflecting and integrating priorities and goals of major environmental policy documents in sectoral development process;
- (c) Not sufficient linkage between planning at national and sub-national levels;
- (d) Low capacity in integrated strategic planning, especially its budgeting, monitoring and evaluation;
- (e) Weak monitoring systems.

103. Elaborated analysis of current countries' situation, capacity and challenges for poverty-environmental mainstreaming will serve as a base for identifying the scope, focus and interventions to assist countries in recognizing and addressing P-E linkages in strategic planning and budgeting at national and sub-national levels.

F. Estimation of benefits of the performed and planned activity in the sphere of land degradation and sustainable land management at national level²⁴

Keywords

104. Resource economics and estimation of benefits and economical losses in the field of sustainable land management in Uzbekistan.

Objective and scope

105. To analyze and make estimation of cost and benefits of the performed and planned activity in the sphere of land degradation and sustainable land management (SLM) at the national level.

Main findings and/or major concerns

106. At present, special steps on the improvement of agriculture management have been undertaken in Uzbekistan: the state programs developed; the legislation and management improved; the reforms carried out; the funds of the state budget and the internal and foreign investments mobilized. The priority attention is currently paid to the improvement of the ameliorative status of the land.

107. However, these measures are insufficient for the introduction of the complex approach to SLM in Uzbekistan. Creation of the favorable environment by integration of SLM principles into the national policy and budget, as well as mobilization of internal and external resources in this sphere is necessary.

108. For more effective utilization of internal resources, it is very important to increase the level of economic and legal knowledge since in many cases the recipients of investments (especially in the regions) cannot provide a competent substantiation of the funds use, therefore part of the national investment fund remain undisbursed.

²⁴ By Central Asian Countries Initiative for Land Management (CACILM) and UNDP, published in 2008.

109. It should be pointed out that the limited access to the information complicates an adequate and integrated assessment of available resources, expenses and requirements connected with the land degradation.

110. The further expansion and increase of efficiency of cooperation with international financial institutions, banks and foreign partners assumes paramount importance for the implementation of the land amelioration objective.

111. The regular economic appraisal of the land degradation is not carried out. Such appraisals are carried out from time to time within the frameworks of international projects by various procedures and have no systematic nature.

112. There is a vital necessity of creating a national system of regular appraisals of the processes connected with the land degradation in order to adopt justified and timely decisions on the sustainable management of land resources.

G. Capacity-building for sustainable use of the land resources²⁵

Keywords

113. Local capacity development in the field of sustainable land management in Uzbekistan.

Objective and scope

114. Review of experience on the training programs on sustainable land resource management. Capacity assessment of the underlying institutions. Identification the needs and gaps in the human development and proposed training programs. Approaches and tools for involvement the local communities and land user associations in cooperation with capacity building stakeholders.

Main findings and/or major concerns

115. Capacity assessment confirms the National Programming Framework conclusion on the need in capacity building for the SLM actualization, establishment of various legal, regulating and political SLM prerequisites and making the land recourse management process the integral one with involvement of different knowledge sectors, institutions and stakeholders. The discussion of the human development results in necessity of capacity building on four direction:

(a) Improvement of legislative and institutional framework, financial and economic measures for transfer to sustainable land resource management at the local, regional and national levels.

(b) Improvement of coordination mechanisms and inter-sectoral relations, natural resource monitoring and management, informational provision of all participants at all levels.

(c) Improvement of existing system of ecological education on the key SLM principles and capacity building of the specialists in this direction.

²⁵ By CACILM and UNDP; published in 2008.

(d) Raising awareness and public involvement in activity on SLM achievement.

116. Completed analysis demonstrated the following:

(a) Training programs in land resource management field in Uzbekistan are mainly conducted in the frame of international projects.

(b) Preparation of the specialists in the field of the land resource management is carried out in higher educational institutions of Uzbekistan at the national level.

(c) However, the need exists in systematic training and capacity building of the different level specialists directly involved in agricultural sector and land resource management.

(d) The organization operate in the country, able to develop the training programs and deliver the training in the fields associated with SLM for the various target groups.

(e) Farmer field schools, demonstration activities on the best land use practice and module training programs ensuring obtainment of the practical and theoretical knowledge are the most efficient training methods.

(f) Fairies and farmer days proved they were rather efficient activities on awareness raising and information dissemination.

117. Application of existing national and international experience and modern approaches and training methods as well as providing stakeholders with information will ensure involvement of the different groups of the civic society and establish the broad basis of SLM participants.

H. Environmental profile of Uzbekistan²⁶

Keywords

118. Assessment of state of environment in Uzbekistan based on environmental indicators.

Objective and scope

119. To assess the state of the environment in Uzbekistan based on environmental indicators. The main objective of the survey was to analyse environmental changes occurred in Uzbekistan during 1996-2006. The monitored indicators have demonstrated the most important trends of the environmental components.

Main findings and/or major concerns

120. This social survey carried out among the specialists of different ministries and agencies, municipalities and NGOs have revealed that potential users are greatly interested in the database of environmental indicators since they may use its data to prepare environmental reviews and reports and reports on the state of environment. The integrated analysis of the database data has confirmed that Uzbekistan has considerably high natural resources potential, rational use of

²⁶ By UNDP; published in 2008; website: (<http://www.undp.uz/en/publications/?mdgs=7>).

which provides the sustainable development of the country and wellbeing of the recent and next generations. Environmental indicator based assessment of the consequences of the global and regional climatic changes in Uzbekistan have shown that yearly temperature in the northern part of the country may increase by 2-3 percent by 2030, in the southern part by 1 percent. Increase in the amount of precipitation is expected throughout the country: in the Ferghana valley and in the northern regions it may increase by 15-20 percent. A downturn in air pollution level was reported in many towns and industrial agglomerations. The problem of disposal and treatment of industrial and domestic wastes is also still needed to be solved. In conditions of arid climate the human pressure increases with the growth of population (need for water and living resources). The hydrographic network of Central Asia has a very uneven distribution of water bodies and resources. During dry years, the most serious water management issues are observed in the lower reaches and estuaries of rivers. Utilization of water resources without taking into account the environmental capacity has also resulted in water quality deterioration and tight situation with drinking water supply. The Aral Sea's shrinking has also resulted in the uprising of numerous social and economic problems whose intensity and consequences are of the international character and significance. Hydrometeorological state of the Aral Sea itself has not stabilized yet, and great efforts are made to stabilize the surface of the dried seabed area.

I. Strengths and weaknesses of existing national policies and legal frameworks aimed at negotiation of land degradation and sustainable land management²⁷

Keywords

121. Existing legislation on land management in Uzbekistan.

Objective and scope

122. To assess the existing legislation on land management, reviewing the latest key documents evaluating the National Land Policy Legislation, land degradation and sustainable land management. Reviewing the structure of the national policy on the problems of land degradation and achievement the sustainable land management.

Main findings and/or major concerns

(a) Legal SLM framework requires further development. The Law of Uzbekistan "On environment conservation" is of declarative nature, and accordingly the provisions of the law need correction. The principles of environment conservation should be closely linked with market principles of natural resources use.

(b) It is expedient to develop the regulation "On monitoring of natural resources use and environment management by non-governmental organizations and citizens of the Republic of Uzbekistan" promoting protection of natural resources and their sustainable use.

(c) It is expedient, that Land legislation would consist not only of Land Code, but would also include the Laws in the field of land use (package of documents), the basic of which is the Law "On Land and land-use management" regulating distribution, use and management of land.

²⁷ By CACILM and UNDP; published in 2008.

- (d) If the land legislation of the country makes provision only for the use of the Land Code, then the Land Code development is required.
- (e) The land legislative framework needs to be developed.
- (f) Drafts of legislative acts or supplementary legislation are subject to harmonization by all ministries and departments involved. Round table meetings are organized and mass media discussions are initiated;
- (g) Development of the guidelines (instructions) for efficient and effective use of land resources in agricultural, forestry and water related activities at the level of ministries and departments, districts and enterprises (farms);
- (h) Development of the guidelines (instructions) for assessment of sustainable land management in agricultural, forestry and water related activities at the level of ministries and departments, districts and enterprises (farms);
- (i) Development of the guidelines (instructions) for assessment of sustainable land management in agricultural, forestry and water related activities in pilot area;
- (j) Development of plans for sustainable land management in the area (pilot, test) based on forecasting and planning of land resources use under market economy;
- (k) Analysis and assessment of the best practices using the CACILM resources and information and the output of other projects;
- (l) Adaptation of the best practices and their replication at the national level;
- (m) Delivery of information on the best practices to the stakeholders and land users.

J. Planning of protected areas in Uzbekistan²⁸

Keywords

123. Review of an existing situation of the National Protected Area System and compile a succinct analysis and an estimation of a situation with planning of the Protected Areas in the country.

Objective and scope

124. The report provides an overview and assessment of the current situation concerning the establishment and planning of the protected areas system in Uzbekistan, with specific reference to the outcomes of the project. It goes on to propose specific activities within the project that meet both project objectives and the needs to extend Uzbekistan's protected areas system and improve capacity for management of the system.

²⁸ By Michael R Appleton, UNDP Uzbekistan; published in 2009.

Main findings and/or major concerns

125. Developing a full Protected Areas Master Plan within the resources available to the project would be a considerable challenge for the project in terms of time, finances resources and logistics, but the outputs required by the project do not really permit anything less, and preparing a ‘partial Master Plan’ may end up being more problematic and less useful.

126. A number of initiatives have been undertaken to extend the protected areas system and to prioritise new areas for conservation in Uzbekistan, but initiatives did not initiate the legal establishment of new protected areas.

K. Will countries in Eastern Europe, Caucasus and Central Asia achieve the water and sanitation Millennium Development Goals by 2015?²⁹

Keywords

127. Water supply and sanitation, MDGs, access to water and sanitation, EECCA, NIS, CIS, water infrastructure, water sector performance and reforms.

Objective and scope

128. 2011 will be just four years before the water and sanitation-related Millennium Development Goals (MDGs) are due to be met. An assessment of progress and an examination of possible further efforts would be timely. This report will build on reports prepared for the Yerevan and Belgrade Ministerial meetings, as well as data collected in the framework of various national policy dialogues. The report would also draw on information on water utility performance and institutional reforms collected in 2009-2011. The report will identify areas where progress has been achieved as well as pointing to bottlenecks which are hindering further reform efforts. It will also develop policy recommendations on the reforms that would be needed for EECCA countries to achieve the water and sanitation MDGs.

Main findings and/or major concerns

129. It is too early to provide preliminary findings, as work on the report has not yet started and data collection is still ongoing. However, past work in this area carried-out for a Ministerial Conference in Yerevan and the Belgrade EfE (2007) indicated the following:

(a) Available data suggest that the overall situation in the water supply and sanitation sector of EECCA has continued to deteriorate; seven years ago it was assessed as critical. This is especially true for the quality of water services, where relevant indicators have shown deterioration in virtually all EECCA countries. This contrasts with the figures of the United Nations Joint Monitoring Programme, which suggest that the region is essentially on track of achieving the water and sanitation MDGs.

(b) The coverage of urban populations with centralised water services remains high, but key indicators have deteriorated, i.e. disruptions of water supply, pipe breaks, and

²⁹ By the Organisation for Economic Co-operation and Development (OECD) Task Force for the Implementation of the Environmental Action Programme for Eastern Europe, Caucasus and Central Asia (EAP Task Force); to be published in 2011.

unaccounted-for water have steadily increased or remained at high levels compared to international benchmarks since 2000; key financial indicators suggest stagnation at poor performance levels.

(c) Some indicators have shown positive signs, such as significantly increased levels of metered water connections in virtually all countries, decreasing levels of water consumption, and improved rates of bill collection. These do not suffice however to reverse an overall negative trend: the EECCA water sector is deteriorating further, and so far there are no signs that deterioration will slow or that this trend will be reversed in the near future. This situation generates serious consequences for public health, the environment, as well as economic development in the region.

(d) To achieve the MDGs on water supply and sanitation, it has been estimated that a total of about € 7 billion would be needed annually i.e. roughly double the current level of finance. Because of financial constraints, most utilities in the region have had to decrease the levels of service they provide in order to save on costly inputs. In addition, utilities have been unable to carry out basic maintenance, further accelerating the deterioration of infrastructure.

(e) To reverse these trends, a number of critical steps must be taken: improve the operational efficiency of water utilities, thereby reducing operational costs; combine all sources of finance to enhance synergies; avoid crowding out other sources of finance; and maximise leverage on total flows. A number of case studies in the region have shown that this is possible.

(f) User charges are, and will remain, the most important source of finance. A number of EECCA countries could still significantly increase user charges before reaching affordability limits. Public budgets are the second largest source of finance for the water sector; financial simulations show that the magnitude of public finance spent on water-related investment will have to increase substantially in some countries. External sources of financing (e.g. official development assistance (ODA)) will generally play a minor role, although they may have important catalytic and demonstration effects.

(g) A review of the major institutional and legal reforms in EECCA indicates that many countries have undertaken measures to improve the situation in the water supply and sanitation sector, most of them in line with the recommendations in the Almaty Guiding Principles. However, these measures remain partial. Despite recognition that local authorities lack capacity and resources to manage water systems properly, central governments have done little to address these problems.

(h) The focus of policymakers should therefore shift from developing to implementing laws and regulations and from central to local governments and utilities. There are a number of positive examples of reforms at the local level that hold important lessons for how such reforms can be carried out. A key challenge is to find ways to disseminate and scale up these best-practice examples. Further efforts are needed to integrate water-related objectives into national policies, including Poverty Reduction Strategy Papers, and to take advantage of opportunities to link reform of the water sector to the achievement of the internationally agreed water targets.

L. Mainstreaming environmental programmes into public budgets: opportunities to overcome the underfunding of environmental programmes in Eastern Europe, Caucasus and Central Asia³⁰

Keywords

130. Budget systems, direct budget support, environmental management, environmental public expenditure management, environmental investment programmes, development cooperation.

Objective and scope

131. As the effects of the financial crisis are having a growing impact on public budgets, and as donors shift from project-based to general budget and sectoral support, good programming and budgeting is becoming increasingly important in attracting adequate funding for environmental activities. This report will aim to help environmental administrations in EECCA to harness the potential benefits of multi-year budgeting. These include: allocation of resources in line with programmatic needs and priorities, predictability and stability of funding, consolidation of various sources of financing (including earmarked environmental funds and donor aid), higher budgetary performance and more efficient use of public money. Overall, this document will provide guidance on how environmental programmes should be developed so that they could be better integrated into public budgets.

Main findings and/or major concerns

132. The policy messages, formulated below, were identified based on past analytical work and topical discussions during two region-wide events organized within the EAP Task Force's umbrella. These messages will be further developed and substantiated in 2010:

(a) Environmental expenditure in EECCA is low compared to other sectors. In many cases, both national and local-level environmental programmes face chronic underfunding. The complexity of the environment sector, coupled with the lack of suitably-trained personnel in the ministries of environment, affects the quality of these programmes. The economic or broader policy rationale for environmental programmes is often not addressed or poorly addressed.

(b) Medium-term budgeting can enable environmental programmes to compete more effectively with other programmes, particularly in a period of crisis. Medium-term approaches to budgeting are now common in OECD countries and are being gradually adopted by EECCA countries. While most EECCA countries have started introducing a medium-term perspective to their annual budgets, they are at different stages of implementation. These range from Armenia, Russian Federation and Moldova that have fully-fledged medium-term expenditure frameworks (MTEFs) to Azerbaijan, Kazakhstan and Ukraine that apply only certain elements of medium-term budgeting. A crisis period is often the right time to introduce and strengthen multi-year budgeting. This can help consolidate public budgets and better target policy actions, as well as provide healthy public finance for the economy after the crisis is over. The absence of sound programming and budgeting could contribute to a further marginalization of environmental activities in the government agenda.

³⁰ By the OECD EAP Task Force; to be published in 2011.

(c) Opportunities to mainstream environmental programmes into public budgets are insufficiently exploited in EECCA. First, the major elements of environmental programmes are not adequately costed. Second, there is a lack of stability and predictability of finance flows, including donor aid flows. Third, the poor management of public environmental expenditure programmes leads to further dissipation of public funds, and weakens the claim of environment ministries for maintaining or increasing their budget allocation. In consequence, there is a need to continue improving the programming and environmental expenditure management practices in EECCA in line with good international standards.

(d) In general, access to finance for environmental investments in EECCA is limited. Domestic capital and financial markets are weak and borrowing is expensive, hence the role of the domestic financial sector in environmental investments is negligible in most EECCA countries. Public support, including from extra-budgetary environmental funds (where these exist) and donor aid, remain the main sources of public finance. At the same time, staff in ministries of finance often lack the understanding of how environmental investments can contribute to overall economic growth which often constrains allocations to the environmental sector. Carbon finance is yet another source of finance for environmental expenditure that EECCA countries need to exploit more consistently.

(e) Better institutional capacity is essential for attaining adequate budget financing for environmental programmes. Technical expertise in preparation of programmes, setting targets and performance indicators can equip ministries of environment with knowledge and skills that would make them more competitive. High-level political support and commitment is crucial to improved budgeting practices.

M. Environmental governance in Eastern Europe, Caucasus and Central Asia: trends and outlook in the context of a green growth challenge³¹

Keywords

133. Environmental and natural resources management; policy implementation; Eastern Europe, Caucasus, and Central Asia, development cooperation.

Objective and scope

134. The report “Policies for a Better Environment” prepared by the OECD Task Force for the Implementation of the Environmental Action Programme for Eastern Europe, Caucasus and Central Asia (EAP Task Force) and other international organizations for the 2007 Belgrade EfE Ministerial Conference reviewed environmental management systems in EECCA. The proposed follow-up assessment will clarify whether progress has continued. It will take stock of the evolution of environmental institutions in EECCA in comparison with selected OECD countries and provide recommendations for future action in light of pressing needs to adopt innovative environmental policies and re-launch growth based on principles of a green, low-carbon economy. The report will help countries to identify factors that contribute to, or impede, successful policy implementation. Particular attention will be given to the role of non-environmental ministries and private-sector actors.

³¹ By the OECD EAP Task Force; to be published in 2011.

Main findings and/or major concerns

135. Though the development of this report will start only in 2010, past work in this area, as well as regular interaction with stakeholders in EECCA, point to the following possible policy conclusions:

- (a) Despite efforts to improve policymaking, environmental objectives are not assigned a high priority by governmental and non-governmental stakeholders. One major cause is that the economic and social implications of environmental policies still receive little attention, and analytical tools that help to understand such implications are adopted at a slow pace. To help countries address this problem, the report will identify good practices of policy analysis, and will discuss opportunities for their diffusion and use in EECCA.
- (b) Unlike in many OECD countries and emerging economies like China, the measures to promote economic recovery identified in many EECCA countries are not explicitly oriented towards green growth. Where “anti-crisis programmes” exist, they rarely mention environmental investments. Efforts to screen-out environmentally harmful policies from government programmes and to improve environmental infrastructure and product policies are still limited and need to be further strengthened. Based on the analysis of latest developments in OECD countries and worldwide, the report will propose actions that may enable and accelerate the shift towards “green” economic growth in EECCA.
- (c) The financial crisis accentuated the strong fiscal orientation of environmental policies. Government authorities have traditionally put a strong focus on the collection of pollution charges, fines, and damage compensation – with limited consideration of their environmental effectiveness. This approach persists and, together with cases of asymmetric enforcement, may further undermine the credibility of environmental authorities and political and popular support for environmental action. Further reform of policy instruments is needed, based on a careful analysis of the incentive framework faced by various actors. In this context, the report will look at approaches that may help to apply the Polluter Pays Principle more effectively.
- (d) Roles of different stakeholders are evolving; however, many of them do not have enough capacity to fully assume these new roles. Thus, the devolution of regulatory powers to the local level is not accompanied with capacity development initiatives. Private actors, particularly large companies, gradually integrate environmental matters in their strategies, but reaching small businesses remains a challenge. At the same time, governments pay little attention to the particularities of this segment of the regulated community apart from setting counterproductive inspection bans. Consumer choices are not environmentally informed and the supply chain pressure is much weaker than in other regions of the world. The NGO community is enlarging its activities related to independent policy analysis and has an increasing ambition to influence policy-making through a blend of domestic and international levers. The European Union’s Neighborhood Policy is playing a catalytic role in the improvement of environmental governance, in particular for adopting participatory approaches of policy-making. In the future, avenues for a stronger involvement and impact of the local administration and non-governmental actors will need to be explored. Based on consultations with various stakeholders, the report will suggest how result-oriented partnerships could be extended in EECCA.

(e) Technical expertise within government authorities is eroding. EECCA countries entered the transition with a high level of technical knowledge, but this human capital has in great part been lost because of a high turnover of the staff of environmental authorities. Besides government-wide disincentives, such as low salaries, frequent reorganizations of EECCA environmental authorities have continued to be an additional sector-specific factor that further de-motivates staff. The report will make an attempt to identify measures that may motivate higher performance and professional development within environmental authorities.

(f) Vulnerability to corruption is still high. Because of nascent corruption control mechanisms, environmental management systems in some EECCA countries are still vulnerable to corruption. Its root causes, such as high levels of bureaucracy, low salaries of public servants, or insufficient transparency and accountability, received some attention but efforts to halt corruption are not yet adequate given the magnitude of this phenomenon. The report will reflect on both existing good practices and further actions to deal with this problem within environmental authorities.

(g) There are important regional disparities in EECCA but international cooperation remains relevant, particularly for the diffusion of innovative policies, knowledge sharing and technology transfer, fostering market mechanisms, streamlining and accelerating environmental financing, or for adopting cleaner models of production and consumption. Low-income countries face an augmented demand of donor aid and the deficit of external financing may be larger than previously. At the same time, there might be efficiency gains from a better use of donor finance. The report will discuss how international cooperation could catalyze and support institutional development and better governance for modern environmental management in EECCA.

N. Adapting to climate change in Europe and Central Asia³²

Keywords

136. Climate change; adaptation; climate vulnerability; adaptation deficit; environmental legacies; Central and Eastern Europe; Caucasus; Central Asia; Russia.

Objective and scope

137. Provides the overall context on recent climate variability and future climate trends with respect to likely impacts on countries in the World Bank's Europe and Central Asia region. It was commissioned as climate will become an increasingly important factor in both investment lending and the development policy dialogue. The report introduces a cross-sector approach to assess vulnerability and adaptive capacities, and then discusses adaptation challenges and opportunities in such key sectors as water and land management, agriculture and forestry, and the built environment. Experience and needs in weather forecasting and disaster risk management are also laid out for the Europe and Central Asia region. The report is one of the two "prongs" of the World Bank's analytical approach to climate adaptation. The second

³² By the World Bank; the report was launched at the Bonn climate negotiations session in June 2009 and will be printed and distributed by mid-November 2009; found as a "Featured Report" on the Europe and Central Asia Region's space on (www.worldbank.org).

“prong” is a series of focused pilot projects in vulnerable subregions and sectors which will be completed in late 2010 to early 2011.

Main findings and/or major concerns

138. Contrary to popular perception, Europe and Central Asia faces a substantial threat from climate change, with a number of the most serious risks already in evidence.

Average temperatures across Europe and Central Asia have already increased by 0.5 C in the south to 1.6°C in the north (Siberia), and overall increases of 1.6 to 2.6 C are expected by the middle of the century regardless of what mitigation efforts are undertaken. This is affecting hydrology, with a rapid melting of the region’s glaciers and a decrease in winter snows. Many countries are already suffering from winter floods and summer droughts—with both Southeastern Europe and Central Asia at risk for severe water shortages. Summer heat waves are expected to claim more lives than will be saved by warmer winters.

139. Vulnerability over the next 10 to 20 years will be dominated by socio-economic factors and legacy issues.

Notably the dire environmental situation and the poor state of infrastructure—rather than by the changing climate itself.

140. Even countries and sectors that stand to benefit from climate change are poorly positioned to do so.

Many have claimed that warmer climate and abundant precipitation in the northeastern part of ECA (Kazakhstan, Russian Federation and Ukraine) will open up a new agricultural frontier. However, the region’s currently low agricultural performance, with efficiency and productivity levels far below those of western Europe, does not augur well for its capacity to seize new opportunities.

141. The next decade offers a window for Europe and Central Asia countries to make their development more resilient to climate change while reaping numerous co-benefits.

While some impacts of climate change are already being felt, they will likely remain manageable over the next decade, thereby offering the Europe and Central Asia region a short period of time to increase its resilience by focusing on actions that have numerous co-benefits.

142. Please see the press release and knowledge brief (www.worldbank.org/eca).

**O. Assessment of environment and health situation in World Health Organization/
Europe region (tentative title)³³**

Keywords

143. Environmental health, policy making, health status, Europe.

³³ European Environment and Health Committee; to be published in March 2010; WHO Regional Office for Europe.

Objective and scope

144. The report will evaluate the status and trends of environmental health issues in 53 Member States of European Region of WHO. The assessment is based on a core set of ENHIS indicators, created using routinely collected data or information from international surveys. The indicators cover four Regional Priority Goals of the Children Environment and Health Action Plan for Europe (water quality and related health problems, injuries and health issues related to physical activity, indoor and outdoor air quality and related health problems, exposure to chemicals, UV and hazardous working environments)

Main findings and/or major concerns

145. Preliminary findings will be available in November 2009.

P. Progress on drinking water and sanitation: special focus on sanitation³⁴

Keywords

146. Water supply – standards, sanitation, water treatment – standards, potable water – standards, water resources development, Millennium Development Goals.

Objective and scope

147. The objective of the report is to assess access to safe water and basic sanitation, and to project further expected evolution till the target year 2015 of the MDGs.

148. Geographically the report is global in scope; it includes nearly all European Member States of the United Nations.

Main findings and/or major concerns

149. The Joint Monitoring Programme for Water Supply and Sanitation (JMP) reports access to improved water piped into dwelling yard or plot, use of other improved sources and use of unimproved sources of water in both urban and rural area as well as a national average. Similarly, the report assesses the use of improved, shared and unimproved sanitation facilities as well as open defecation in urban and rural settings as well as nationally. The report also contains an assessment of the percentage of the population that gained coverage of improved water supply (1990 – 2006) with respect to median population (1998); it has the similar information regarding the use of improved sanitation. The report highlights the geographic inequities between countries in the western and eastern part of the region, and the differences that continue to exist between urban and rural regions in one country. In the many countries of the European region especially rural regions lag behind the intended progress in sanitation; some countries registered a regression in access. Geographical inequities inter- and intra-country, and failure to meet the MDG goals, especially for sanitation are noted as the two main areas of concern.

³⁴ By the World Health Organization (WHO) and United Nations Children's Fund (UNICEF) Joint Monitoring Programme for Water Supply and Sanitation; published in 2008; website: (http://www.who.int/water_sanitation_health/monitoring/jmp2008/en/index.html).

150. WHO will address these issues through the 2009 UN-WATER Global Annual Assessment of Sanitation and Drinking-Water to be completed October 2009 and published early 2010.

Q. Europe's environment – the fourth assessment³⁵

Keywords

151. The report highlights priority areas such as: environment-related health concerns (issues related to air quality, inland waters, soil, hazardous chemicals); climate change; biodiversity loss; overuse of marine resources; the current patterns of production and consumption; and pressures caused by economic activities (agriculture, tourism, transport, energy).

Objective and scope

152. The latest report in a series of assessments of the pan-European environment the report assesses environmental progress in 53 countries — an area with a total population of more than 870 million people. The region includes: EECCA and SEE as well as Western and Central Europe (WCE).

Main findings and/or major concerns

153. Improved implementation of existing policies and the setting of clear, realistic targets is a key recommendation of the report. However, a shared environmental information system is also urgently required to deal with a prevailing lack of reliable, accessible and comparable environmental information across the pan-European region.³⁶

R. The pan-European environment: glimpses into an uncertain future³⁷

Keywords

154. Forward-looking environment assessment of the Pan-European region, scenarios, projections, environmental outlooks, driving forces, uncertainties.

Objective and scope

155. This report builds on a wide range of existing forward-looking studies that have become available for the pan-European region. It addresses environmental outlooks related to the policy priority areas identified in the Sixth Environmental Action Programme of the European Community and the Environment Strategy for Countries of Eastern Europe, Caucasus and Central Asia (air quality, inland waters, and soil; climate change; biodiversity loss; resource use and waste generation) and the underlying driving forces, their trends and uncertainties that are

³⁵ By the European Environment Agency; published in 2007; website: (http://www.eea.europa.eu/publications/state_of_environment_report_2007_1).

³⁶ Please also notice the related publications by OECD and UNDP presented at the Belgrade conference: (1) OECD, 2007- Policies for a better environment — Progress in Eastern Europe, Caucasus and Central Asia (<http://www.oecd.org/dataoecd/33/12/39274836.pdf>); and (2) UNDP, 2007 - Environmental policy in South East Europe.

³⁷ By the European Environment Agency; published in 2007 (EEA Report No 4/2007); website: (http://www.eea.europa.eu/publications/eea_report_2007_4).

likely to shape Europe's environment in the future (geo-politics and international cooperation; globalisation and trade; population and migration; economic development; consumption patterns; energy, transport and food; land use and use of natural resources; global environmental change and its feedback).

Main findings and/or major concerns

156. The report provides a number of glimpses into the future of the environment in the pan-European region. Based on the available literature and forward-looking studies, there are discussed selected environmental outlooks and highlighted some of the related uncertainties. Even if it is not exhaustive, it illustrates quite clearly the diversity of plausible future scenarios that we can discern today – and demonstrates the inherent uncertainty in forecasting long-term changes within complex socio-economic, technological and environmental systems.

157. For some areas, future developments seem somewhat less uncertain and possible future pathways are better understood than for others. A prominent example of this type of issue is demographic projections, and thus allow the forecasting of demographic patterns up to a generation ahead with some certainty.³⁸ However, even demographic projections are not entirely certain, as future trends may easily be entirely upset by sudden discontinuities or surprising events (such as major epidemics) and includes also uncertain element of migrations.

158. However, for most environmental issues, future changes are far less determined, and often depend heavily on how the driving forces of socio-economic systems unfold and how society responds to environmental challenges in the years to come. In order to overcome the complexity and uncertainty in the discussion of any future pathway, modern forward-looking assessments commonly build on developing and analysing multiple futures.

159. In general, responding to unfolding environmental challenges across the pan-European region in a robust manner requires a clear understanding of the driving forces and uncertainties that surround our outlook on future developments. In this context, this report has stressed the need for forward-looking assessments in support of policy processes and to address uncertainties in a systematic manner using appropriate approaches.

160. Conclusions on the need for the better forward-looking environment assessments in the pan-European region. We need to:

- (a) Foster well-designed and sound assessments, that integrate environmental and socio-economic issues, i.e. forward-looking assessments that:
 - (i) Integrate environmental, social, economic, technological and demographic aspects;
 - (ii) Are well designed to fit their instead of borrowing off-the-shelf approaches (i.e. tailor-made rather than ready-made);

- (iii) address uncertainties and options for the future in a systematic way, using appropriate methodologies and techniques;
- (iv) address issues on the current policy agenda, for example as adaptation to climate change, consumption patterns or ecosystem services;
- (v) are geared to support current sub-regional policy-processes, rather than consisting of a downscaling of Global exercises.

(b) Include more projections into national-level environmental reporting processes; it is necessary to adapt data information systems to capture also forward-looking perspectives and emerging issues on a more regular basis. The European Environment Agency (EEA) is making an effort to capture available information in the EEA Indicator Management System (IMS) – in order to compare and analyse relevance to policy issues and data uncertainties. A key aim here is to strategically include future perspective in the regular environmental reporting mechanism and to complement indicators on past trends with future perspectives.

(c) Increase the expertise and resources available to build and to carry out forward-looking studies – both at the supra-national and national levels. In this context, cooperation between countries and international organizations is indispensable to allow the sharing of experiences in developing forward-looking assessments. In particular, more ‘hands-on’ experience and sharing of good practice are imperative to insure sound results. EEA, for example, in cooperation with several member states and other organizations has organized national and international workshops, with the aim improving institutional capacity among its partners.

161. In short, faced with high complexity and uncertainty, we need to significantly strengthen the institutional capacity across at all scales, i.e. at national, regional and international level, to perform relevant, credible and scientifically sound forward-looking assessments - in order to better support those that make environmental policies today.

S. Sustainable consumption and production in South-Eastern Europe and Eastern Europe, Caucasus and Central Asia³⁹

Keywords

162. The report provides detailed information and a review of sustainable consumption and production (SCP) initiatives in key production-consumption areas — industry, food, buildings, transport, and waste.

Objective and scope

163. The goal of the report is to identify opportunities for and barriers to more sustainable consumption and production in the SEE and EECCA countries, and to highlight relevant experience which could be replicated throughout the region.

³⁹ Joint UNEP-EEA report on the opportunities and lessons learned; published in 2007 (EEA Report: 2007/3); website: (http://www.eea.europa.eu/publications/eea_report_2007_3).

Main findings and/or major concerns

164. The analysis in each of these areas is illustrated by examples of implementation of SCP initiatives at local level, drawing on 18 city studies carried out for this report in 11 of the 18 SEE and EECCA countries covered. Many SEE and EECCA countries face similar problems and there is huge potential to share knowledge and experiences and work towards a common path to sustainability. Cities have acted as potential catalysts for change as shown by a large number of local sustainability initiatives.

T. Progress towards the European 2010 biodiversity target and the Indicators fact sheets⁴⁰

Keywords

165. Biodiversity, 2010 target, indicators, Convention of Biological Diversity (CBD) focal areas, pan-European context.

Objective and scope

166. The two reports listed above illustrate that European biodiversity remains under serious pressure and our policy responses have been insufficient to halt its general decline. The European 2010 target will not be met. This report is an important help to consider the European target and allow an insight into what is needed to do better — or quicker — to halt the loss of biodiversity.

Main findings and/or major concerns

167. The main conclusion is: “We have to conclude that the European 2010 target will not be met”.

168. See the foreword and executive summary (pp. 5-8) in EEA report 4/2009 mentioned above (<http://www.eea.europa.eu/publications/progress-towards-the-european-2010-biodiversity-target/>).

U. Waste without borders in the European Union? Transboundary shipments of waste⁴¹

Keywords

169. Waste and material resources, transboundary shipments, illegal shipments, Basel Convention.

⁴⁰ By EEA; published in May (EEA report 4/2009) and in July 2009 (EEA Technical report 5/2009), respectively; websites: (<http://www.eea.europa.eu/publications/progress-towards-the-european-2010-biodiversity-target/>) and (<http://www.eea.europa.eu/publications/progress-towards-the-european-2010-biodiversity-target-indicator-fact-sheets>).

⁴¹ By EEA; published in 2009 (EEA Report 1/2009); website: (<http://www.eea.europa.eu/publications/waste-without-borders-in-the-eu-transboundary-shipments-of-waste>).

Objective and scope

170. This report presents data on waste shipments within Europe and out of Europe (mainly EU countries are covered) for both so called notified waste (mostly hazardous and problematic waste) as well as for non-hazardous waste. It presents drivers for shipments but also gaps that still exist in our knowledge as regards some waste streams (such as e-waste) or what influence shipments have on the environment. It also presents some illegal shipments issues.

Main findings and/or major concerns

171. More detailed reporting on waste shipments to the European Commission would enable a better understanding of shipments and their nature to be obtained.

172. See pp. 18-19 for the main conclusions (<http://www.eea.europa.eu/publications/waste-without-borders-in-the-eu-transboundary-shipments-of-waste>).

V. Impacts of Europe's changing climate - 2008 indicator-based assessment⁴²

Keywords

173. This report to present the latest information on past and projected climate change and its impacts through indicators, to identify the sectors and regions most vulnerable to climate change with a need for adaptation, and to highlight the need to enhance monitoring and reduce uncertainties in climate and impact modeling.

Objective and scope

174. The report presents past and projected climate change and impacts in Europe by means of about 40 indicators and identifies sectors and regions most vulnerable with a high need for adaptation. The report covers the following indicator categories: atmosphere and climate, cryosphere, marine biodiversity and ecosystems, water quantity (including river floods and droughts), freshwater quality and biodiversity, terrestrial ecosystems and biodiversity, soil, agriculture and forestry, human health. Furthermore the report shows the need for adaptation actions at EU, national and regional level and the need for enhanced monitoring, data collection and exchange and reducing uncertainties in projections. The report is a joined effort of the EEA, the European Commission's Joint Research Centre (JRC-IES) and the WHO/Europe.

Main findings and/or major concerns

175. For key messages see pp.11-19 of Executive Summary
http://www.eea.europa.eu/publications/eea_report_2008_4/pp1-19_CC2008Executive_Summary.pdf.

⁴² By EEA, JRC and WHO; published in 2008 (EEA Report reference: No 4/2008; JRC Reference Report No JRC47756); website: http://www.eea.europa.eu/publications/eea_report_2008_4.

W. Review of forward-looking studies in Eastern Europe, Caucasus and Central Asia, 2006, 2007, 2008 updates⁴³

Keywords

176. Literature review, forward-looking studies, scenarios, Eastern Europe, Caucasus, Central Asia.

Objective and scope

177. A literature review was conducted (in 2006-7) to identify future-oriented studies in EECCA. The review searched for studies on pan-European level and national level and for global studies which are of relevance for the Wider Europe. Research was done for all environmental issues, relevant sectors and some other areas relevant for sustainable development (e.g. population).

Main findings and/or major concerns

178. The review focused on around 300 studies across environmental topics and many economic sectors. Nearly 70 future-oriented studies were identified in EECCA, and more than 80 within the SEE region. In addition, more than 80 global-scale studies relevant to analyses in the pan-European region are available. Update was done in 2008 and is in the process of publishing. The majority of these studies within both EECCA and SEE, however, focus on non-environmental issues. In EECCA countries, economy and energy studies dominate. Fewer studies can be found on transport (despite its recognition as a key issue in the EECCA Environment Strategy adopted in Kiev in 2003), demography (with the exception of some country-level projections), land use, agriculture, consumption, forestry, health, technology, or wastewater. Of the existing studies, only a very limited number deal with possible future environmental implications. A noteworthy exception here are water scenarios for Central Asia, where this is an important environmental and security issue (UNECE / UNESCAP⁴⁴, 2004). Another example is the Carpathian outlook (UNEP, 2007b) which focuses on the three pillars of sustainable development – environment, society and economy.

179. This lack of forward-looking indicators is especially evident in the areas of water quality, biodiversity, climate change impacts and in the use of natural resources. Some economic sectors (such as energy and transport) seem to be well covered than others (such as agriculture and tourism). However, even where outlooks and forward-looking indicators are available, they are not always well suited for evaluating the full dimension of the environmental problem at stake.

180. This review showed that a range of different approaches towards developing future studies have been used: from model-based projections, through reference scenarios with alternative scenarios, to fully explorative scenario studies. Many studies built on the participation of different stakeholders with the scenario-building process. However, a question that remains is how the inputs from stakeholder participation are fed into the forward-looking assessments to shape their outcomes.

⁴³ By EEA; published in 2006, 2007, 2008 updates; website: <http://scenarios.ew.eea.europa.eu/fol585720>.

⁴⁴ United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP).

181. The review of forward-looking assessments within the region also highlights a number of gaps, including weak coverage of environmental concerns, recurring problems of methodological soundness, reliability, information gaps, as well as a lack of direct relevance to policy priority issues. These gaps are also a key reason why only a limited number of the studies reviewed are highlighted within the environmental outlook provided in chapters 3 and 4 of this report. Instead, the analyses presented here necessarily rely mainly on information published by the EEA and information from other international organizations that provide outlooks that include the pan-European region (using, where applicable, country-level scenarios for illustration).

182. Most of the existing supranational studies, particularly those that cover EECCA and SEE countries, have been organized by international organizations, rather than by regional or national entities. This, however, often results in an emphasis of the global perspective, and outcomes of such studies are often rather general and can only contribute to specific policy processes or inform relevant strategic choices in an indirect manner. Thus, in order to increase regional and political saliency, active involvement of regional or national institutions in the development of options for the future is certainly required – where pertinent, this should nevertheless be inspired and/or supported by international organizations.

X. Integrating the environment and sustainability in energy policies in Eastern Europe - contribution to the Environment and Security programme and to the European Environment Agency State of the Environment Report 2010⁴⁵

Keywords

183. Energy security, scenarios, sustainability, strategies.

Objective and scope

184. To provide long term sustainability assessment of national strategic initiatives developed in response to energy security challenges, primarily from environmental point of view.

185. To provide options on improving policies and systems of national energy planning for a design of sustainable oriented energy strategies and plans.

186. To raise awareness and to develop capacity of national specialists to integrate environmental and sustainability considerations in energy-related strategic initiatives.

Main findings and/or major concerns

187. This paragraph describes the rational for the project and expected outcomes. Conclusions will be fully available after the project is finished at the end of the year:

188. Energy security is a central national priority in Belarus, Moldova and Ukraine. Reliable, secure, and affordable energy supply is a key aspect of the countries' energy policy. It is currently impaired by high energy intensity, import dependence, high and volatile fuel prices and

⁴⁵ by EEA, UNDP, UNEP and a number of local and other partners: Ministries / Agencies of Environment Protection and Energy, Academic and design organisations, NGOs, Central European University (CEU) and Lund University, Global Energy Assessment, IIASA, and OSCE; ongoing activity.

unacceptable human and environmental costs of traditional energy supply options. To increase energy security, Eastern European governments diversify their energy supplies and explore increased use of domestic energy resources (hydropower, coal, oil, gas, peat, biomass, and wind), reducing energy intensities of national economies, constructing nuclear power plants as well as diversifying import options. National energy security programmes and strategies define specific long-term measures to achieve energy security⁴⁶.

189. At the same time, national energy strategies do not always fully take into account long-term environmental and other sustainability considerations. For example, there is a need for a better mix between energy supply and energy demand strategies in order to achieve a broader range of environmental, social and economic benefits. Also, the national energy strategies have to strike a balance between national objectives (e.g. security of supply) and broader, global issues such as the transition to a sustainable, low carbon economy. In this respect, further analysis of the environmental impacts of energy production and consumption patterns (taking a life-cycle perspective) will be required.

190. This project aims to address these concerns by supporting governments and other national stakeholders in systematically assessing the links between energy production and consumption and sustainable development and using this knowledge in formulating and implementing long-term energy strategies. The project will promote pilot application of strategic environmental assessment (SEA). SEA – a tool for evaluating environmental (and wider sustainability) aspects of strategic initiatives – has been endorsed by a number of international regimes and incorporated into the national legislation of the three countries, but both the experience of and capacity for applying it remains limited.

191. Another promising approach to planning for future energy systems that meet diverse sustainability needs (security, access, health and the environment) is being developed by the Global Energy Assessment (GEA), an international effort led by IIASA (Austria) and supported by several national governments and international organizations. GEA aims to provide an integrated assessment of trends, challenges and potential solutions associated with energy systems. More information about GEA is available at www.globalenergyassessment.org. European Environment Agency will bring to the project European perspectives and experiences as much as it will be possible. Although no specific energy- environment scenarios are envisaged by the agency as an input to this project, the experience available on scenario building within the agency, should allow to discuss linkages between regions in the area of energy and environment.

192. Through supporting pilot SEAs or para-SEAs of governmental energy strategies and placing them in the context of the Global Energy Assessment and related efforts, the project aims to improve environmental and sustainability aspects of the energy strategies in these countries. Equally, the capacity to assess and improve sustainability of energy strategies will be enhanced in the region. Through spreading information about the GEA, EEA (European Environment Information and Observation Network (EIONET)) and enhancing environmental cooperation between the Eastern European countries and beyond, the project will also contribute to

⁴⁶ The Belarusian Government developed a programme on production of a quarter of electricity and heat in the country using local fuel and alternative sources of energy. The Government of Ukraine is about to update their “Integrated state program on energy saving in 2005–2020”.

improving cooperation on energy, environment and broader development issues also in the context of the EU Neighbourhood Policy.

Y. Sub-regional Survey on water quality standards, norms and issues in Central Asia⁴⁷

Keywords

193. Central Asia, survey, water quality, water resources, transboundary water resources, environment, health, standards, harmonization.

Objective and scope

194. Increased integration of national water quality standards in Central Asia, with a view to enhancing institutional transboundary cooperation on water quality issues in the region and to strengthening efforts to harmonize existing water related legislation with EU standards.

195. The present situation in Central Asia is characterized by the deterioration of sanitary and epidemiological conditions both in national watersheds as well as within the basins of transboundary rivers. It is caused by a practice of either unregulated or differently regulated consumption of water in the Central Asian Republics, which often share common water bodies. Against this backdrop, a water and energy situation that is already difficult and tense at best during years of normal weather can quickly deteriorate into a major humanitarian, economic and political crisis for the region.

Main findings and/or major concerns

196. Central Asia is fundamentally an arid region, with its most fertile regions former deserts made arable by vast irrigation systems. Most of the water comes from the mountain ranges of Kyrgyzstan and Tajikistan channeled downstream to Kazakhstan, Turkmenistan and Uzbekistan through the Amu Darya and Syr Darya rivers. The quality of this water influences all branches of socioeconomic development in Central Asia, such as the deterioration of water ecosystem, health related issues, quality of irrigation water, etc.

197. Particular the protection and improvement of shared water bodies quality can only be addressed through a joint effort of all Central Asian Governments, adopting mutual obligations on adequate transboundary waters quality. An early assessment by the Regional Environmental Centre for Central Asia (CAREC) indicated that the region still lacks a common system on quality transboundary water resources regulation, both for national – and international water bodies:

(a) The States of Central Asia continue to lack coordinated programs of water quality monitoring, resulting in insufficient data on water quality, particular for transboundary river basins;

⁴⁷ By the Regional Environmental Centre for Central Asia; to be published in November 2009; website: (www.carecnet.org).

(b) The lack of adequate information and the absence of harmonized criteria to evaluate the water quality prevents an objective classification of the waters quality respectively an agreed upon ecological zoning of those water bodies;

(c) No common system on monitoring of water quality of surface waters exists.

(d) Beyond political goodwill, both the current lack of expertise in monitoring of water quality and the needs of the current institutional set up have to be addressed.

198. Water quality management in the five States of Central Asia is currently carried out by special state departments, often not focusing on the reduction of pollution, preservation and improvement of water ecosystems condition. Water users lack incentives as well as financial, technological and technical resources in order to follow water quality requirements. Attempts of Central Asian countries to address those challenges should be coordinated. The EU approach to water quality regulations could be considered as a model for the improvement of existing systems of integrated water resources management principles in the region.

199. CAREC has carried out four national surveys in countries of Central Asia on the institutional and legal system of water quality management. Early findings are outlined in the box below. The forthcoming subregional survey will suggest steps to develop coordinated national policies on water quality and their integration into a common regional system for Central Asia.

When the Amu Darya enters Turkmenistan it is already being considered moderately polluted with 2.3 gr/l, yet leaving the country its mineralization has increased to 6.5-8.5 gr/l in Uzbek side. The Ural River in western Kazakhstan has been classified as pure, but has two times more than maximum permissible content of nitrate nitrogen and phenol. The water quality of the Syr Darya River in southern Kazakhstan has been classified as moderately polluted, but it has five times more than maximum permissible content of sulphates, nitrate nitrogen and copper - four registered disease outbreaks on its tributary Keles have been reported. The water quality of the Ile River is reported to be moderately polluted, but has from three to seven times excess on ferrum, fluorides, chrome, etc. The waters of both the Chu and Talas rivers are considered moderately polluted, but there is six times excess on copper, nitrogen-ammonium, sulphates and three times on phenol and fluorides.

Z. Assessment of the impact of economic activity on the state of water ecosystems of Central Asia on the example of the Ili-Balkhash Basin (IBB)⁴⁸

Keywords

200. The level of pollution of the surface waters in the basin and its decrease due to taking it for household needs and climate change threatens the health of population and is the reason for non-restorable degradation of eco-systems.

⁴⁸ By CAREC; to be published in 2010; website: (www.carecnet.org).

Objective and scope

201. This assessment will give the most complete characteristics of the state of water facilities and ecosystems of Ili-Balkhash Basin, impact of different types of economic activities on it and offers actions on possible rehabilitation of the main water basins of Central Asia on the example of IBB. Besides that, the data on the quality of water and the analysis of reasons of its state in the main river basins of the Central Asia, received within the projects of CAREC on water quality, will be used for direct and extrapolated assessment and recommendations.

Main findings and/or major concerns

202. Ili-Balkhash Basin covers more than 400 thousand square km and is the biggest lake ecosystem of Kazakhstan. The main inflow to the river comes from the transboundary (China) river Ili (about 80 percent), and also, small rivers of Kazakhstan.

203. 3,3 million people live in the Kazakhstan part of the basin. Population in the Chinese part of the basin increased from 1 million in the 1980s to 4 million at present. To satisfy the needs of public services and agriculture, and industry of the region, the most of the rivers were regulated, more than 6 thousand artificial water reservoirs were built, and ramified system of channels and water lines was created. However, the increase of industry and population of China and Kazakhstan brought to deficiency of water in the region, which is constantly growing. Deficiency of water in rivers brings to shoaling of the Balkhash River – the main ecological stabilizer in the region.

204. It is necessary to consider that consumption of water in Kazakhstan part of the basin reduced in the period from 1995 to 2005 almost twice and was a little more than 4km³ (more than 8 km³ in 1990), which was the consequence of disintegration of the Soviet Union and total transformation of the economics. However, starting 2001, water consumption in Kazakhstan part of the basin has increased to 7 percent every year. During the last years, intake of water from Chinese part of the basin is regularly increasing and was more than 4.2 km³ per year in 2006.

205. At the same time, it is necessary to consider that the period from 1993 to 2006 was favorable for the main river and lake basins of Central Asia with the natural high water level due to increase of precipitation. Forecasts of specialist say that the coming 15-20 years will be dry.

206. The quality of the surface waters of the basin brings significant danger to the health of people and fauna.

207. In the coming years of low water level, against the background of the increasing water intake from the whole basin and significant decrease of water quality, IBB may become an area of environmental crisis, which will immediately reflect the prospects of social-economical development of the region and relationship between China and Kazakhstan. The opportunities of self-regulation and restoration of ecosystems are almost exhausted. Climate change, increase of volumes of water intake, pollution of surface and ground waters with household drain, change of hydro-regime of rivers, intensive construction of HES on the big and small rivers, destruction of the mountain and flood-plain forests – all of this brought to significant degradation of ecosystems of the region and desertification.

208. Set of actions on integrated management of the basin, based on recommendations of the EU Water Framework Directive, project of the Agreement between Kazakhstan and China on IBB, pack of documents on institutional provision of the basin principle of development were offered to the Government of Kazakhstan. These measures are being integrated in the national and regional Action and development plans? The project of the Agreement is being used for negotiations with China. The practice of implementation of the project with receiving the required data, processing and using them for making recommendations and attracting stakeholders, using the recommendations of the EU Water Framework Directive and adaptation of them will also be a subject of this assessment for further distribution in Central Asia.

AA. Climate change and biodiversity - findings of a survey on national climate change policies of seven Central and Eastern European countries⁴⁹

Keywords

209. Climate change, driving forces, environmental pressures, biodiversity, ecosystem services, renewable energy sources, coherent environmental policy, holistic approach.

Objective and scope

210. CEEweb has compiled a questionnaire about the national programmes on climate change mitigation and adaptation of Central and Eastern European (CEE) countries, in order to assess these governments' approach to climate change. Professional NGOs from five Central and Eastern European EU Member States (Czech Republic, Hungary, Latvia, Romania and Slovakia) and two additional countries from the region (the former Yugoslav Republic of Macedonia and Serbia), have filled in the questionnaires so far. After drawing the consequences of the survey, CEEweb has also developed its recommendations for a sufficient climate policy, which is not detailed here. Our main focuses were:

- (a) Whether the strategy goes as deep as the driving forces behind climate change
- (b) Whether the whole scope of environmental pressures is covered
- (c) How much biodiversity and ecosystem services are taken into account
- (d) The role of renewable energy sources, especially biomass and biofuels in the strategy
- (e) Whether public awareness raising is emphasized
- (f) Whether a coherent environmental policy is proposed.

Main findings and/or major concerns

211. We believe that no sufficient climate policy can exist without realizing and targeting the driving forces behind the environmental pressures leading to climate change. We think that the

⁴⁹ By the European ECO-Forum (CEEweb for Biodiversity); published in 2008; website: (<http://ceeweb.org/workingareas/climatechange/NationalClimateStrategies/index.html>).

main driver of climate change is the constant growing of energy and material use. None of the countries that we asked have identified this basic principle in their National Climate Strategy. On the contrary, they except further growth in use of electricity (the former Yugoslav Republic of Macedonia), intensification of agriculture and demand of energy in transportation (Hungary). However, some countries (Czech Republic, Hungary, Serbia and Slovakia) mention that there should be some changes in the structure of production and consumption, e.g. production should be shifted towards lower energy-intensity, and consumption towards higher energy-efficiency.

212. The environmental pressures – which are in the scope of all strategies - are not covered fully. In our understanding, the emissions, the excessive use of natural resources and the degradation of natural ecosystems are equivalently important causes of climate change.

213. In fact, none of the strategies we analysed deal with the whole scale of pressures, they focus mostly on the greenhouse gas emissions, first of all, CO₂. The emission of other polluting compounds, however, is not mentioned by any strategies, although these also can significantly contribute to climate change by the weakening of ecosystem services. Only few countries recognize that beside direct ones, there are many by-pass (indirect) pressures leading to climate change, the identifying of which requires a coherent system-thinking (Czech Republic and Serbia). None of them count with virtual pressures.

214. In case of natural resources, we think that a realistic pricing (e.g. tax or quota on natural resources) could help avoiding their over-exploitation, which is mentioned in the Czech and Hungarian strategies, but only generally. All countries but the former Yugoslav Republic of Macedonia plan to minimize the waste of material and energy through closed cycles in the production and consumption.

215. Our general impression of the climate strategies is that they focus mostly on technologies and pay less attention on biodiversity and ecosystem services. In our view, sufficient cover of natural or semi-natural habitats is indispensable both for its direct climate-regulating role, for its adaptation capacity and for its role in biogeochemical cycles, providing various ecosystem services to man. While the climate-regulating role of decreasing CO₂ level can be expected only on the long term, and happens on the global scale, that of natural surface cover operates on the short term and on local and regional level. When it comes to the adaptation, it is obvious that a mosaic-like, diverse landscape providing diverse connections between locations of natural habitats is the most viable. But if we look at the strategies, no countries propose that the cover and coherence of natural or semi-natural habitats should not further decrease. None of them propose, either, that the structure of landscape as a whole should be diversified, to strengthen natural interactions and ecosystem services including climate regulation. No country aims to take steps against expansion of intensive agriculture and large monocultures, and none of them plan to reconsider and, if needed, enlarge the area of protected land and Natura 2000 in the light of climate change, either.

216. All seven countries aim to satisfy the future needs of energy with increased share of renewable energy sources. Although most of them prefer also sources which are not depletable (Hungary, Latvia, the former Yugoslav Republic of Macedonia, Serbia and Slovakia) the most emphasis is put on biomass and biofuels. All countries plan to increase their share. In our view, energy plantations and biofuel production must be carefully thought-out, because the intensively cultivated large homogeneous fields can limit the natural resources' ability of renewing,

withdraw biological diversity and further worsen the structure of land cover due to their high demand of territory and chemicals. Only two countries (Hungary and Romania) aim to protect forests and other natural or semi-natural ecosystems from the land use change due to the growing need for biomass, and no countries determine the possible locations and maximum areas of biomass plantations. We think that the last two provisions should be vital for every climate strategy.

217. All strategies aim to raise public awareness about climate change. Most of them propose a permanent consultation body on climate policy. But only few of them propose to integrate the policy of climate change in various other policies, in order to make a coherent environmental policy with holistic approach. There are connections mentioned towards agri-environmental and forest-environmental programmes (Hungary, the former Yugoslav Republic of Macedonia and Serbia), Water Framework Directive activities (Hungary, the former Yugoslav Republic of Macedonia and Serbia), rural development (the former Yugoslav Republic of Macedonia and Serbia), regional development plans (Hungary and the former Yugoslav Republic of Macedonia), authority permissions (the former Yugoslav Republic of Macedonia) and energy policy (Czech Republic, Hungary, the former Yugoslav Republic of Macedonia and Serbia).

BB. Assessing the European Union Biodiversity Action Plan and its implementation – a failure of delivery or a failure of approach?⁵⁰

Keywords

218. EU Biodiversity Action Plan (BAP), post-2010 European Biodiversity Policy, 2010 target, drivers of biodiversity loss, environmental pressures, socio-economic drivers.

Objective and scope

219. In 2001 EU leaders committed themselves to halt biodiversity loss by 2010. The main instrument to support the delivery of this target is the EU Biodiversity Action Plan (BAP). The mid-term review of the BAP published late 2008 by the EC concluded that the EU is highly unlikely to reach the 2010 target. In its report CEEweb assessed the BAP and its implementation looking for the reasons for the failure. In the same time recommendations were made for a new direction in EU biodiversity policy post 2010.

Main findings and/or major concerns

220. CEEweb for Biodiversity assessed the BAP and its implementation and concluded that the more than 150 BAP actions, although most of them are indispensable for biodiversity conservation, do not respond to the root causes of biodiversity loss. Looking at the wider socio-economic framework, the BAP actions are not more than end-of-pipe solutions trying to tackle the results of our consumption and production patterns, sectoral institutional system, economic regulatory framework and material values among many others. The complex nexus of cause-effect relationships which connect biodiversity changes and socioeconomic trends is not sufficiently revealed and the underlying problems remain untouched both by biodiversity and

⁵⁰ By European ECO-Forum (Klára Hajdu, CEEweb for Biodiversity); published in February 2009; website: full report – (http://www.ceeweb.org/workingareas/policies/docs/BAP_full_report.pdf), short summary – (http://www.ceeweb.org/workingareas/policies/docs/BAP_assessment_leaflet.pdf).

other EU policies. The DPSIR (drivers-pressures-state-impact-response) model developed by the EEA provided the framework for our analysis. Our findings reveal the deeply underlying cultural, institutional and structural drivers, which ultimately hinder the implementation of the current EU biodiversity policies. Our assessment shows that without tackling these drivers, biodiversity policy in the EU cannot be fully realized, or even with enhanced efforts it will not deliver the desired results. Consequently the problem of biodiversity loss cannot be tackled with biodiversity conservation measures alone, and even efforts for sectoral integration seem insufficient. Halting the loss of biodiversity is possible in the long term within a properly functioning market economy, which is able, by taking a holistic approach, to ensure the sustainable use of natural resources, the good quality of the environment, the coherence of ecosystems, as well as social justice. Whilst immediate implementation of already identified conservation measures, and some additional ones, is essential in the short term, it is indispensable to complement these efforts with the design and implementation of long term measures which can lead to fundamental changes in the socio-economic drivers underlying biodiversity loss. These measures should bring about the lowering of total environmental pressure to a level that stays within the global ecological carrying capacity.

221. Recommendation 1. Put an absolute limit on total natural resource and energy use and ensure the sustainable use of biodiversity. Applying input side regulation to the economy is the only effective way to decrease total environmental pressure. This would create the right balance between the use of natural resources and human labour in the production process, shift the production and consumption patterns towards less energy- and material-intensive products and services, and positively change the values of society towards appreciate natural resources and healthy ecosystems more.

222. Recommendation 2. Improve the coherence and connectivity of natural ecosystems. As the status of biodiversity is largely determined by the spatial structure of ecosystems, effective land use policy that can ensure the coherence and connectivity is indispensable for biodiversity conservation. Currently there is no coherent ecological network in Europe but made infrastructures form a coherent network of roads, rails, pipelines, etc. This needs to be changed.

223. Recommendation 3. Effectively control the total environmental pressure originating from pollution and biological agents. The quality of the state of the environment and thus ecosystems needs to be ensured through strict legal regulations, which first of all aim for prevention (through controlling the intentional and unintentional spread of invasive alien species, maintaining the integrity of ecosystems, giving up the use of genetically modified organisms (GMOs) and controlling the production of chemicals and other pollutants) and which apply control and eradication as complementary measures. In order to achieve the above recommendations, an open debate with no sacred cows, which examines fundamental socioeconomic links and relationships in a holistic approach, needs to start. This debate should also be extended to the global level within the framework of the CBD, Pan-European Biological and Landscape Diversity Strategy (PEBLDS), World Trade Organization (WTO) and other forums, as global solutions are needed for global biodiversity.

CC. Biodiversity National Country Profiles from Pan-Europe⁵¹

Keywords

224. Pan-Europe, national biodiversity assessments, biodiversity commitments, Kyiv Resolutions, common trends, threats, progresses in nature conservation, NGO involvement.

Objective and scope

225. Country profiles are presenting data on biodiversity and related policies on fact sheets (in the form of attractive leaflet) for Pan-European countries (in 45 countries, since all countries are targeted participating in PEBLDS). Regional synthesis reports is being prepared to summarize the main conclusions and findings of the survey. The publications will be disseminated at the Fifth Biodiversity in Europe Conference going to take place in September, 2009 and will also be available online.

Main findings and/or major concerns

226. The Pan-European region is greatly diverse not only from biological, but also from socio-economic point of view, which in turn has a huge impact on the environment through the human pressures and drivers behind them. Due to the socio-economic, cultural and historic differences we assessed the Pan-European countries divided into six subregions: Western Europe (including the old EU Member States), Central Europe (the new EU Member States), SEE and EECCA (see the list of the assessed countries in the six subregions in Annex I.). Different levels of development and development priorities in these subregions influence the level of political support for biodiversity conservation, while the availability of human and financial capacities has practical implications for the planning and implementation of activities. It is often deemed a luxury of the most developed countries to focus on biodiversity conservation in the light of economic and social development priorities, which many non-EU countries, but sometimes also new EU Member States within the EU declare. On the contrary many decision makers from Western countries see international biodiversity policy processes and policy guidance as mainly targeted towards those countries, where still higher biodiversity can be found and the national capacities for nature conservation are lower. This is how subregional differences generate excuses for not making the necessary steps in biodiversity conservation at higher political levels anywhere in the region.

227. At the same time sectoral thinking does not reveal the common drivers behind biodiversity problems, which all pan-European countries share in a globalised world. International cooperation would be needed to eliminate these common negative drivers for the future wellbeing of all citizens in pan-Europe. As human well-being is closely linked to the state of biodiversity and the delivery of ecosystem services on local, national and global levels, each country has the responsibility to safeguard its remaining ecosystems or even enable their recovery if much of them have been lost already. This requires both a paradigm shift in the socio-economic framework and environmental policies, where international (and pan-European) cooperation is indispensable, and increased commitments and efforts on national level in basically all fields that this assessment covers. Also in this latter field pan-European and

⁵¹ By European ECO-Forum (CEEweb for Biodiversity); published in 2009; website: (http://www.ceeweb.org/5th_Bidi_in_EU/, http://www.ceeweb.org/5th_Bidi_in_EU/Profiles/Profiles.html).

subregional cooperation can provide an added value through experience exchange, common projects and other means. The analysis of biodiversity threats and conservation efforts, which is presented in this report, highlight some of these common pan-European interests and point out some priority fields of cooperation at subregional and regional levels.

228. Data include on:

- (a) Participation in international conventions;
- (b) State of biodiversity in pan-Europe;
- (c) Main threats to biodiversity;
- (d) Progress in nature conservation in pan-European countries:
 - (i) The role of National Biodiversity Strategy and Action Plans (date of adoption, means of adoption/endorsement, review procedure if exists, % of implementation, earmarked budget, recommendations);
 - (ii) Protected areas and Natura 2000.
- (e) Implementing the Kyiv Resolution in Pan-Europe;
- (f) Other aspects of nature conservation;
- (g) Involvement of the civil society in nature conservation.
